

The

Fall 2017

POTOMAC FLYER



In this issue: Business Car • Achievement Program • Merit Awards Part 2: Lessons Learned — Structures • Mark Me Up! — Turnouts and Operations • Ancient Modeler: Retirement • Preparing for Crossroads of the MER • What's in that Name? Tate & Lyle Staley • We'd Like You To Meet • Detailing & Weathering Flex Track and Turnouts • Track Cleaning • Durango and Silverton Narrow Gauge Railroad • Operations Initiative Report • Nicholas Kalis's Oahu Sugar Company

The Division Crew

Superintendent
Brian Sheron, MMR
301-349-5754
email: Superintendent *

Sr. Assistant Superintendent
Marshall Abrams
301-588-1005
email: Sr-Asst-Super *

Assistant Superintendent
Ed Rosado
202-255-4541
email: Asst-Super *

Paymaster
Tom Brodrick
301-253-0558
email: Paymaster *

Clerk
Bill White
410-535-4293
email: Clerk *

Achievement Program
Coordinator
Brian Sheron, MMR
301-349-5754
email: Achievement-Program

Webmaster
Bill Mosteller
703-272-8190
email: Webmaster *

Potomac Flyer Editor
Marshall Abrams
301-588-1005
email: Potomac-Flyer *

Layout Tours Coordinator
Tom Brodrick
301-253-0558
Assistant Coordinator
Nick Kalis
703-585-0100
email: Layout-Tours *

Layout Web Pages
email: Layout-pages *

* all email addresses end with
@potomac-nmra.org
Click on address to send email.



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Tip: All of the entries in the Bill Of Lading are links. Point to an entry and click to jump to that article.

Potomac Flyer

Potomac Division's Quarterly Newsletter

Submission Deadlines

Winter Issue December 1
Summer Issue June 1

Spring Issue March 1
Fall Issue September 1

Cover photo: Oregon Coast Railroad #40 is pulling a string of chip cars past the fishing harbor at Willbridge. Mat Thompson took the photo with a Canon Rebel T3i and processed it with Helicon Focus, a photograph stacking program, and Photoshop Elements.

From the Business Car

by Brian Sheron, MMR, Division Superintendent

I hope everyone has had a great summer. By the time this column is published, it will officially be fall, which is considered by many as the unofficial start of “Model Railroading Season.” With the days getting shorter and cooler, we tend to spend more time indoors, which can translate to more time to work on your model railroading projects. I have a number of items I want to share with you in this column, so it is a bit longer than usual. However, I think the information is important and I urge you to read all of it.

Conventions

First, I hope many of you plan to attend the 2017 MER convention in Harrisburg, PA October 12-15. If you have never been to a MER convention, it is a very worthwhile experience, and I highly recommend it. Not only are there high-quality clinics from which you can improve your model railroading skills, but there are many outstanding home layouts you can visit and see what others in the Region have done.

The auction and white elephant sale give you an opportunity to sell model railroading stuff you no longer need, or to buy some neat stuff. The banquet is always fun, and even if you don't want to partake of the banquet, you can come into the banquet room at the end of the meal and participate in the auction. There are always great prototype tours available. And finally, if you finally finished that model you've been working on and what to get it judged for a Merit Award, the contest room is just the place to bring it.

In addition to the upcoming convention, we have been actively working on the 2018 MER convention that the Potomac Division will be hosting on October 14-17, 2018. I'm happy to say that we have a lot of members who have volunteered to help with the various tasks associated with staging a convention. Marshall has gotten the website up, and we will be adding information to it as it becomes available. See the article in this issue, “Preparing for Crossroads of the MER.” Bill Demas is heading up the layout tours and Call Boards (Op sessions). If you have a layout and want to host an open house and/or an operations session, please go to <http://potomac-nmra.org/MER2018/Layout%20Tours.html> to contact him.

Bylaw Change

I recently received an e-mail from Kurt Thompson, the vice-president of the MER. Kurt informed me that there was certain language in our Bylaws that was not consistent with the Regional Bylaws. Specifically, in article XII.3, our Bylaws state:

3. The Election Meeting of the Division will be held at a time and place to be established by the Board each year to hold elections and conduct other appropriate business. Date, time, and location will be communicated electronically to all members at least fifteen days ahead of time. A report of the meeting and the activities of the Division for the preceding year shall be communicated to members following the Annual Meeting in the Potomac Flyer.

Kurt informed me that because there are members within our Division who do not have e-mail, they would obviously not be able to be notified electronically of our annual business meetings in which we conduct elections, vote on Bylaw amendments, etc. Each NMRA Division member in good standing has the right to participate in Division business meetings, and thus the right to be notified of when and where those meetings will take place.

To correct this issue, the Board of Directors is proposing to modify the language in item 3 of Article XII by simply eliminating the word “electronically.” Thus, the proposed new item 3 would read:

Welcome Aboard

(Name & County)

David Bowerman	Fairfax
Randolph Ghertler	Montgomery
David Higgins	Montgomery
Richard Owens	Fauquier
Al Ravella	Prince William
Joe Ruppert	Fairfax
William Sydow	Prince William
Brad Trenkamp	Alexandria City
Michael Tuomey	Fairfax

3. *The Election Meeting of the Division will be held at a time and place to be established by the Board each year to hold elections and conduct other appropriate business. Date, time, and location will be communicated electronically to all members at least fifteen days ahead of time. A report of the meeting and the activities of the Division for the preceding year shall be communicated to members following the Annual Meeting in the Potomac Flyer.*

For those members who do have e-mail, we will still continue to notify them of upcoming business meetings by electronic means. For those members that cannot receive notices electronically, we will notify them of the time and place of all business meetings through a USPS mailing.

Because the Bylaws can only be changed by a majority vote of the membership, we cannot change the Bylaws until the membership votes on the proposed change. However, the Board decided that we will informally implement this change starting now.

2018 Business Meeting/Minicon/Layout Tours

At the Board meeting we held on Sunday, September 10th, we discussed the need for a business meeting in 2018 in order to conduct elections and to vote on the proposed Bylaw change. We also discussed the layout open houses and, that despite repeated requests to the Division members to volunteer to show their layouts at a monthly open house, we were not getting volunteers.

As many of you know, we typically do not hold Minicons in the same year that we host regional conventions, because we simply don't have the resources to plan and schedule both in the same year. However, because we need to conduct an annual business meeting, the Board decided that we could have a 1/2-day meeting in the spring that would include a business meeting, and perhaps a clinic and/or panel discussion. We are currently looking for a venue that is affordable. We also decided to look into the option of instead of having monthly layout tours, we would have quarterly tours. However, instead of just one or two layouts, we would try to get 3-4 layouts in the same area, so members could see all or some of the layouts in an afternoon. Each quarter we would try to schedule layouts in the same general area.

Survey status

The Board spent a considerable amount of time at its meeting on September 10th discussing the survey results. We got a lot of good suggestions from the members who responded. The two biggest issues that we ran into as we reviewed the responses were:

1.) Many of the suggestions can only be implemented if we got more participation by the membership. One example was a comment that we should have more models in the model room at the Minicons. Obviously we rely on the members to bring models for display and judging, so the only way we can get more models is if the members bring more models for display.

2.) We often got conflicting suggestions, and often suggestions appeared to come from just one person. Thus, making changes to respond to a suggestion may not represent the wishes of the majority.

Our plan is to provide a general summary and overview of the survey results in the next issue of "The Flyer," and to have a more detailed analysis posted on the web site. **I**



Brian is a long-time model railroader, and models the Port Jefferson Branch of the Long Island Rail Road in HO scale. He earned Master Model Railroader (MMR) certificate number 469 in 2011 and is currently the Superintendent of the Potomac Division, His goal is to make NMRA membership, and model railroading in general, a rewarding and fun experience for Potomac Division members. In the spare time he has, when he's not working on his trains, he enjoys playing bluegrass banjo and plays with an informal group at monthly jam sessions.

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Achievement Program

by Brian W. Sheron, MMR

I'm delighted to report that over the summer, Mat Thompson completed the requirements for Master Model Railroader (MMR) and has been awarded MMR #595 from the NMRA. Mat earned his seven achievement certificates in:

Master Builder – Scenery

Chief Dispatcher

Model Railroad Engineer – Electrical

Model Railroad Engineer – Civil

Model Railroader Author

Master Builder – Structures

Master Builder – Cars

As many of you know, Mat lives in Gainesville, Va., and if any of you have had the opportunity to visit his layout, you will see that it is spectacular, and understand that his MMR is well deserved. Be sure to watch for the article announcing Mat achieving MMR #595 in an upcoming issue of *NMRA Magazine*.

I am aware of several others in the Division actively working on their Achievement Program (AP) certificates needed for the MMR certificate. Now that the days are shorter and growing cooler, this is a good time to get back to working on AP certificates.

I have said this in the past, so I won't dwell on it, but many of you have probably completed a good percentage of many of the AP certificate requirements, and just need to go the last mile to complete them. If you have any questions about the requirements, please do not hesitate to contact me at

BWSheron@mac.com.

As a final note, for those of you working on any of the AP categories, please note that while the requirements for many of the categories state that a Record and Validation (R&V) Form must be submitted with your AP package, **the Record and Validation form is no longer needed.** The R&V form requests the same information that is needed on the Statement of Qualifications (SOQ) form, so it is only necessary to submit the information once on the SOQ form. Charlie Flichman, the Regional AP Chair, has stated this a few times in his column in "The Local." However, many of you may have missed it, so I wanted to repeat it here. I have been told that the NMRA will be revising the AP requirements shortly to reflect this. **I**

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Mat Thompson and his Oregon Coast RR



Earning Merit Awards for Cars and Structures Part 2: Lessons Learned – Structures

by Mat Thompson

Part 1 of this series explained the scoring matrices judges use to evaluate cars and structures for Merit Awards. It appeared in the Summer 2017 issue of the Potomac Flyer ([click here](#)). You can see all the matrices by referring back to that article.

When I first became interested in the Master Model Railroader program, the only Merit Award models I saw were also prize winners in National and Regional NMRA Conventions. I didn't find photos and scoring information of less illustrious Merit Award models typical of my best modeling efforts.

This article uses pictures and brief text to explain the points given to several of my structures so you gain a sense of what's needed to earn Merit Awards. Remember that a model needs to score 87.5 points or more out of a possible 125 to receive a Merit Award.

This chart is a reminder of the Judging Factors:

Category	Factor	Point Range
Master Builder Motive Power	Construction	0-40
Master Builder Cars	Detail	0-20
Master Builder Structures	Conformity	0-25
	Finish & Lettering	0-25
	Scratchbuilt	0-15

Twelve structures are needed to earn the Structures Certificate. A structure can be a building, a signal bridge, a ship or virtually anything man-made that isn't a railroad car or engine.

- Six structures must be scratchbuilt.
- Six structures must be highly detailed.
- One structure must be a bridge.
- Six structures must earn Merit Awards. They can be any combination of scratchbuilt and super detailed models.

Four of my structures illustrate the expectations for super detailed models.

Each of these models is nicely done and well detailed but they don't demonstrate the craftsmanship required to earn a Merit Award. The manufacturer cut walls and many other parts to size. Window and door openings were cut and the tug's hull was a cast piece. All these steps the manufacturer has taken to make a good kit have taken much of the work out of building the model.

The store is scratchbuilt but not as defined by the NMRA judging criterion, which is that a model is considered "scratchbuilt" if at least 90% of the model's pieces/parts are fabricated by the modeler. My model didn't meet that criterion



Campbell Howe Truss Bridge – kit



Seaport Models Tugboat – kit

because I used commercial door and windows castings and other detail parts.



Chalk Creek Water Tank – kit



Store – scratchbuilt

The next several models earned Merit Awards. All but one was judged at home in place on my layout. They were built to satisfy my modeling interests and needs of my railroad. Evaluation for Merit Awards came much later. So, even if the scores aren't high, I learned that structures can make the grade if you model decently.

TIP: If your models are judged at home, you can have structures already on a layout judged and there is more opportunity to talk with the judges, which makes it easier for them to understand what you have done and for you to understand their scores.

MODEL:	Jefferson Station – Scratchbuilt		SCORE: 89
Factor	Points		Good
	Possible	Awarded	Bad
Construction	40	28	No joint gaps, added interior and removable roof
Detail	20	17	Station interior, completeness of details
Conformity	25	17	Functionally believable
Finish & Lettering	25	17	Smooth paint, roof weathering
Scratchbuilt	15	10	Interior and removable roof
			Commercial casting doors and windows



Jefferson Station was scratchbuilt from magazine plans for an ornate Colorado narrow gauge station. Eliminating some of the fancy trim to more fit the environment of my railroad cost some Conformity points. Without the scratchbuilt interior, this model would not have earned a Merit Award. The score could have been increased by adding the Colorado trim, scratchbuilding the doors and windows (not hard with styrene), and making the platform from individual planks.

TIP: Structures do not have to be big to earn Merit Awards.

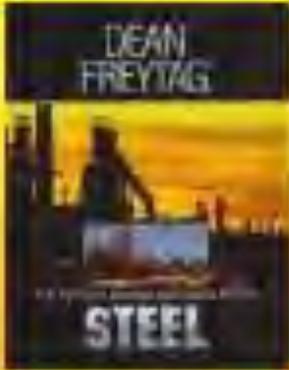


MODEL:	Tillamook Cheese – Kitbash			SCORE: 94
Factor	Points		Good	Bad
	Possible	Awarded		
Construction	40	35	Complex building, used multiple building materials and structure has many roof lines	
Detail	20	13		Gutters, downspouts, electrical meter not modeled
Conformity	25	16		Building is believable but not model of a prototype
Finish & Lettering	25	22	Light weathering typical of food plants, complex painting of doors and windows, prototype signs	
Scratchbuilt	15	8	Scratchbuilt platform, created decals for signs	

Tillamook Cheese is another example of the value of scratchbuilding. Additional points could be earned by adding interior details visible through open doors, detailing the second story room and making it visible with removable roof. Potential additions include additional chimneys and roof vents, downspouts and gutters, and an electricity meter.

IT'S BACK AGAIN.

You can't keep a good book down. So the late Dean Freytag's classic book about the steel industry has been reprinted for a fourth time. Known as the NMRA's *Man of Steel*, Freytag fills 165 pages of this hardcover book with everything you need to know to understand this fascinating industry and the modeling of it.



Like the previous two, this printing features a forward by Freytag himself. Don't miss this opportunity to own a modeling classic and one of the most popular books the NMRA's Kalmbach Memorial Library has ever published. Because there may not be another chance.

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MODEL:	Farm House – Scratchbuilt		SCORE: 93
Factor	Points	Good	Bad
	Possible	Awarded	
Construction	40	32	Clean joints, complex roof lines
Detail	20	13	Detail are complete but structure only required moderate details
Conformity	25	15	Rain gutters some places bend in under the roof
Finish & Lettering	25	18	Smoothly painted, clear definition between colors Not a complex paint scheme
Scratchbuilt	15	15	Windows, doors, chimney and back porch lattice scratchbuilt

This model did receive a Merit Award but I feel the point count is low. The problem is that my documentation did not show the judges the complexity of construction.

You are required to fill out a judging form or attachment describing the scratchbuilt and commercial parts used and explain the work you did. My suggestion is to use pictures and bullet lists – things that are easy and quick to digest.

TIP: Scratch building windows and doors from styrene is not difficult and is an easy way to improve scores and show your modeling ability.

TIP: This is NOT a construction article for the model press; you are just giving the judges a handy guide to understand your work. Page after page of dense text doesn't help your cause. Judges are supposed to read it but that doesn't mean they understand it or find it useful.

If you used a unique construction process such as creating your own decals or uncommon technology such as 3D printing, explain what you did and how you did it in detail. It could add to scores in several factors, but if the judges are not familiar with what you have done, they won't know to give you credit for your work.

TIP: Include pictures of the work in progress so the construction process becomes obvious. I did not do that for this farmhouse, so the judges may not have understood all the things I did to build this model.



One common question is whether commercial kits can receive Merit Awards. There is no rule against it, and I have seen Fine Scale Miniature models awarded more than 87 ½ points, but you may find it is hard to get the points needed because much of the quality of a kit is from the manufacturer’s work, not the work of the modeler.



This station is from South River Model Works. Materials and instructions are first class. With some modeling skills and patience, it builds into a beautiful model. It has never been judged but here’s my estimate of the point count it might receive.

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MODEL:	Station – kit		SCORE: 58 to 75	
Factor	Points		Good	Bad
	Possible	Awarded		
Construction	40	25 to 30	Clean joints, complex roof,	Roof seams are too large
Detail	20	5 to 7		Limited additional detail
Conformity	25	15 to 20	It's believable and the instructions show a photograph of the prototype	No prototype diagrams or drawings to check dimensions
Finish & Lettering	25	13 - 18	Brick painting is good, all painting is neat	Roof weathering too dark
Scratchbuilt	15	0		No scratchbuilt elements
How to increase score	Repaint and weather roof, review photo for detail that could be added, add rafter tails, open freight door and add interior details by door, add birds and bird droppings to roof, model some windows in open position			

TIP: Judge your own models against the Factors to ensure your success.

The next article and final article in this series will consider earning Merit Award for Cars. **I**

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THE DEFINITIVE BOOK ON FREIGHT TERMINALS

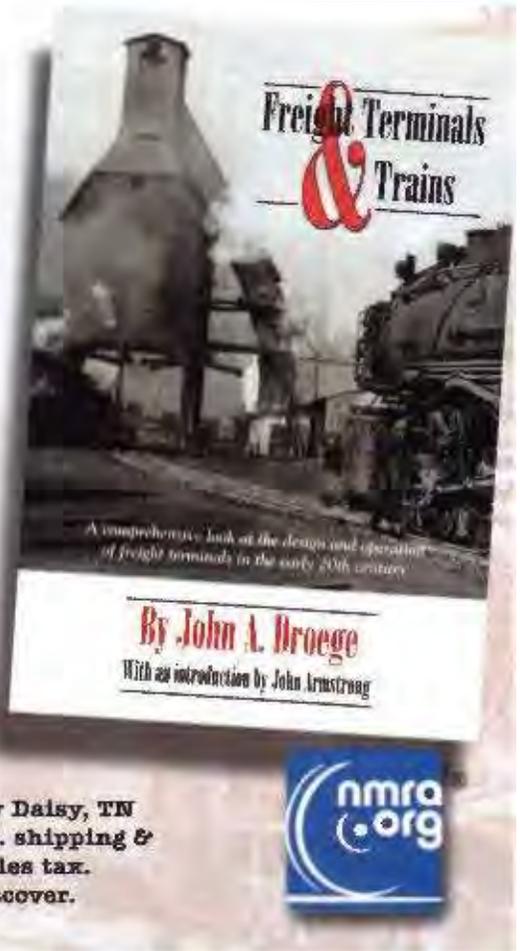
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Mark Me Up! — Turnouts and Operations

by Mat Thompson

Model railroaders normally call the movable rail that guides trains from one track to another a turnout and call the mechanical or electrical device that moves the track a switch.

The straight track of a turnout is the normal or through track. The diverting track connects to a siding or other track. For operations, think of turnouts as curves. Just as when driving a car, if your train is continuing on the through route, maintain speed. If your train is taking the diverting route, slow down. The Condensed Code of Operating Rules has rule 105 for that:



Walla Walla Valley 775 is backing a reefer down a spur to the clean out rack at Swift. The Trailing Point turnout allows the switch engine to back a car down a spur to set out or pick up cars and then pull out of the siding to continue work. Trailing Point turnouts are the track configuration needed to do virtually all switching.

Rule 105 – Trains and engines using a siding or any track other than the main track must move at restricted speed and be prepared to stop short of a switch not properly lined.

How slow? If the turnout is to an industrial spur, yard track or other auxiliary track, slow to restricted speed defined as "...not exceeding 10 mph." If a turnout moves traffic onto a branch line or crosses traffic between mainline, decreased speed is wise but slowing to restricted speed may not be needed.

Rule 104 is another important operating rule concerning turnouts:



Here is the same track but now it is a facing point turnout because the car to be set out is behind the engine. The engine could pull the reefer down the siding but then the engine would be boxed in - an impractical and uneconomic situation no railroad would allow.

Rule 104 – Unless otherwise provided, the normal position of a mainline track switch is for the main line and it must be lined and locked in that position except when changed for immediate movement.

A not-so-good way to become known quickly during an operating session is to consistently fail to follow rule 104.

A large part of operations is positioning your train and engine to pick up and set out cars at sidings along your route. A facing point siding (see picture) is a challenge. You can't just couple up and push a car along to its destination -

So what do you do? Look at the track around you. Is this the spot you are trying to work connected to other track? Can you run around the car with your

engine so that the spot becomes a trailing point turnout (a turnout you can back in to)? At this point, Rule 103 comes into play. The path may not be direct, so remember you are on a model railroad. Our towns are separated by only a few feet, not miles as on the prototype. If you find a route where you move to another town and then back up, it may work, but you really aren't behaving prototypically.



The solution to the Trailing Point turnout problem is to run around the car. Here the switcher has uncoupled and then moved forward through the next two turnouts. Once past the far turnout, the turnout has been thrown and the switcher is backing towards the reefer on an adjoining track.



Now the engine has backed past another turnout. With that turnout thrown, the engine can pull forward to the reefer and then push the reefer down the siding. Completing the run around maneuver has turned the Facing Point turnout into a Trailing Point Turnout.

are still OK.

But, if you are an inferior train, such as a 3rd class local or an extra (and that's probably the case if you are out switching industries along the mainline), you need to study the timetable and your orders and not proceed to the switching location until you are clear of superior trains. If there is any doubt, put out flagman in the front and/or rear as needed.

Rule 103 – Cars must not be handled ahead of the engine between stations and outside yard limits except when necessary to take cars to and from a spur track.

No luck? Read your train instructions. Maybe you are only supposed to work trailing point sidings, specific industries, or certain tracks at a location. Another train coming from the other direction will work what you see as a Facing Point turnout because it will be a Trailing Point turnout for them.

Still no luck? Look at your orders and train instructions again. You could be an out and back train, often called a Turn, meaning your train starts at A, goes to D and then returns to A. In this case, switch the Facing Point turnout when coming back so it is Trailing Point turnout you can work.

If you still can't find a way to work the spot, leave it or check with the division superintendent (your host). Maybe you have overlooked something, or maybe the host has the situation covered and you just don't have the information or don't understand it in your train instructions.

Even with the spot as a Trailing Point turnout, you have a problem. What do you do with the rest of your train? Can you just leave it sitting on the mainline? If the layout is signaled, yes. The signals will protect you. If you are operating on a warrant giving you track or track and time, the Dispatcher is protecting you with the warrant.

If you are operating by Time Table and Train Order, life is a bit more complicated. If there is a siding where you can pull off the whole train and then do your work, do it. If you are superior to any trains coming towards you or coming up behind you for the time you need to work the spot and proceed to your next destination, you

So you are finally lined up to spot a car. Who throws the switch that moves the turnout? And then, where exactly do you put the car? Look for the answers in the next Mark Me Up. **I**



Engineers and Firemen say "Mark me up!" to get their name on the crew Call Board for their next run. "Mark Me Up" is a quarterly column focused on how model railroaders can become operators and members of the operations community. Mat Thompson's Oregon Coast Railroad was featured in Great Model Railroads 2014. Building structures and scenery are his favorite modeling activities. He is also an avid model railroad operator and regularly attends operating sessions.

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Editor's Notes

by Marshall Abrams

I'd like to thank all the Potomac Division members who have supported the *Potomac Flyer* to make it such an outstanding division newsletter. In addition to the authors and photographers whose contributions are identified, the proofreaders deserve a round of applause.

I'd like to encourage members who haven't published previously to give it a try. As you see in all recent issues, the *Flyer* publishes a mix of articles that are interesting and informative. We cover a wide range of subjects, including (obviously) model railroading, personal interest, first-hand experience with prototype railroads, skill development, NMRA programs – especially the achievement program, site visits, etc. Articles published in the *Flyer* earn credits toward the NMRA Achievement Program Certificate for Model Railroading Author.

A good article will address as many of the "five Ws and one H" of reporting¹ as are relevant:

- Who
- What
- When
- Where
- Why
- How

Perhaps the most important part of an interesting article is quality photos that illustrate each point that you make. We can help you with photography, even finding another member to take pictures.

Let's say you are going to attend a railroad-related event. Here's a list of items a good article should address:

- Where was the event held, how long was it (# of days), and about how many people attended?
- Who sponsors it? Is it part of NMRA? How much did it cost to register?
- Did it focus primarily on one scale or gauge, or were all scales and gauges equally represented?
- Were there any prototype tours?
- What were the main events at the event? Was there a contest/model room? How many clinics?
- Any noted guest speaker? If so, what was the topic?
- Report how many open houses there were.
- Were there any operating modular clubs set up?
- Approximate cost of registration, hotel, and transportation
- Anything else of note?
- Provide information about future events so that people can decide if they would be interested in attending.

I look forward to hearing from prospective authors. Potomac-Flyer@potomac-nmra.org **I**

¹ https://en.wikipedia.org/wiki/Five_Ws

Ancient Modeler # 15 — Retirement

by Bob Rosenberg

“Retirement - (ri-ti/er-ment) - noun. The act of leaving or withdrawing from one’s job, career, or occupation permanently, usually because of age.” Well, that’s the New Collegiate Dictionary definition and it pretty much sums up my current situation, especially the age part. I don’t mind being the ancient modeler – in fact, I take a certain amount of pride in my longevity in the hobby – but the ancient dentist? I think not. There are no legal limits on what I’ve been doing for the last 52 plus years like there are on airline pilots, but someone my age can decline physically and, if it’s subtle, we may not spot it in time. I decided to go out while I still have it all together because there’s no way to determine when I’ve started to lose it other than the hard way. The opportunity to semi-retire came when my dental neighbor a block down the street suggested we merge our two practices, but—for health reasons—I finally realized that I just couldn’t do it. So I finished up my pending cases in my own office before heading out to pasture on August 31, and the new dentist took over what I would modestly describe as the greatest and most loyal group of patients anywhere. Even though I hope my health situation may improve substantially, I am still ready to wrap it up. Fifty-two years is really enough.

One of my staff members came to me one day a few years ago. Like many of us, she had worked through her teen and college years and, after graduation, went to work on Capitol Hill for a Senate committee, retiring after 30 years and then coming to work for me. She stayed for nine years through some serious health issues that were eventually favorably resolved, but by then she wanted, as she put it, “some time for me.” I didn’t fully understand it then, but I do now; it’s the realization that we’re all mortal; there’s nothing like serious health problems to, as they say, “focus the mind.” As much as I love dentistry, I really didn’t want to die at the dental chair. I’ve been working since I was 15 myself – through high school, college, and graduate school – and have been practicing since 1965; enough is enough. No more four days a week at the office or being on 24-hour call including weekends and holidays. I’m going to play with my trains, relax in my recliner, read a few books, maybe write a blog, but it’s time to put my high speed drill back in its receptacle and leave it there for good.

For some of you, retirement is no big deal; you’ve already been there and done that, a few of you more than once. So have I, if you count my retirement from the Navy Reserve after 31 years. This, coincidentally, was also on the 1st of September in 1992, 25 years to the day earlier, although that time it wasn’t entirely my idea. In the military, it’s up or out. I’d been passed over twice for promotion, but except for freeing up another weekend to sleep in, it hardly made any waves in my life style (pun intended) since my retirement benefits didn’t kick in for six more years. A friend of mine who retired from the government many years ago said the only downside was not being able to look forward to weekends or holidays anymore because every day was like Saturday. Clint Hyde said something very similar to that in the latest *MER Local*. If that’s true I’ll take it, but I suspect there’s a lot more to it than that. Retiring and retiring successfully are two different things. Another friend of mine retired and then proceeded to virtually curl up and die because he couldn’t come up with anything better to do. Theoretically, model railroading will be my something better to do. I will finally have the time to implement some of my ideas from the past that I’ve had to sandwich in between Little League games, voice recitals, yard and house work, pre-college visits, and that ever present distraction, work – all those things that take precedence when you have a growing family, as well they should. But I then embarked on what became a 20-year senior league baseball career (who knew?) until knee and hip problems finally put an end to that. I’m ready now for something more sedentary, and model railroading will be ideal as soon I can climb my own stairs again, and as long as I can keep the small parts on the work bench. My dream would be to rebuild the Berkshire Air Line and eliminate all the mistakes I made the first time around, but time and my age pretty much rule against that. The next best possibility would be to add those features that I neglected to include in the original construction to what exists now, such as additional staging tracks and improving my accessibility, a much more practical objective which the retirement from my professional career should now make possible.

So what happens on the first Monday that someone who has gotten up and gone to work for the previous 2700 or so Mondays but doesn’t have to do it anymore? Sleeping in is the obvious choice for the first one, maybe the second one too, but what about after that? I used to work on my railroad early in the morning before anyone else was up. I could accomplish quite a bit in those days; can I still? Or would I even bother now that I have the whole day? And what’s that old saying: Work expands to fill the available time and space? Will I now be taking six or eight hours to do what I used to do in two? I could put myself on a

schedule: two or three hours of railroading followed by lunch and then nap time, or more productively, work out time at our club pool; better yet, enlist some Potomac Division-type modeling expertise to assist me. I'd be less likely to wander off for an early nap if I had someone else there with me to keep me on track (again, pun intended). Also, that type of expertise would be invaluable with the construction projects that I have planned. I learned the hard way once before that what I envision in my mind doesn't always translate that well into the real thing. Just having someone there who knows more than I do, which should be relatively easy to find, would be a big help in keeping me out of trouble; for example, a more knowledgeable modeler might have spotted the flaws in some of my original designs for building the BAL, such as grade elevations that I realized too late didn't work very well, if at all.

While there's no real deadline to make these changes, if possible I'd like to have some of them in place so that I can host another Division Layout Tour. The railroad is running fine right now and would be perfectly suitable for operation as is, but it would be nice to have some alterations in place from the last time I ran it for the division, if only cosmetic ones. I guess my theory is that the more I have planned out to do, and/or the more I have piled up on my plate, the less likely I am to emulate my late friend mentioned in the third paragraph of this piece. I may have waited too long to begin my retirement; only time will tell me that, but now that it's finally at hand, I'd like to get to it sooner rather than later and make the most of it in whatever time I have left. There's a Bible verse from the Book of Ecclesiastes that I believe is most appropriate for my present situation: "To everything there is a season, and a time to every purpose under heaven." For me, that time is now. **I**



Bob Rosenberg's current railroad, the Berkshire Air Line Railroad Company, is a fictional bridge/short line set in western Massachusetts in the 1950's that uses New Haven, B&M, and NYC equipment.

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Preparing for Crossroads of the MER

The Potomac Division is hosting the 2018 MER convention, "Crossroads of the MER." It will be held over Columbus Day weekend, October 4-7, 2018 at the Rockville Hilton in Rockville, Maryland. The Potomac Division is staffing a Local Convention Committee (LCC) to plan and operate the convention.

The 2016 MER Convention, "Tracks to the Triangle," recognized that smart phones and GPS have changed the way we can provide information about the location and content of places of interest as well as directions for driving to them. Marshall Abrams is designing web pages for "The Crossroads of the MER" that are interactive and mobile-friendly.

The mobile-friendly part means that the page reconfigures itself so that it's easy to use on a full-size display, a tablet, and a smart phone. The interactive part is that a user can click/tap on the pins on a map on the screen and more information will pop up.

Marshall plans to use this interactive capability for the Layout Tours. He'll probably make a map for each time slot (e.g., Friday evening). These maps will be made available only to people registered for the convention, about a week before the convention. Convention attendees will be able to open a map for each time slot and click/tap on the map to learn the name, scale, and location of each layout. Tapping on the location will open up Google maps with directions from the present location to the layout.



As layout tours get scheduled, non-interactive maps will be available on the convention web site that will show the location of the layout, but not the address. The addresses are not posted in order to protect the owner's privacy. In addition to showing the relative location of the layouts, the web page will include a table of time and distance between all the locations shown on that map. Many of us remember such tables being part of the free, yes free, maps that gas stations used to give away. The tables, maps, and layout descriptions will make it possible to plan in advance which layouts to visit.



Marshall has created a demonstration interactive mobile-friendly web page that you can try now. It contains information about public Railfan locations. The page is at <http://potomac-nmra.org/MER2018/Railfan>. Marshall would be delighted to receive suggestions for improvements by email sent to Abrams_railroad@comcast.net?subject=Railfan_web_page. **I**

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We'd Like You To Meet:

by Roger Sekera

Over the past four years, this Flyer column—*We'd Like You To Meet*—has detailed 15 separate model railroaders. The intent or focus of this column has been to identify model railroaders who:

- Are in the early stages of their lives or have just not achieved the stage light period of their modeling lives—at least not yet,
- Have achieved a notable measure of skill,
- Live here in the Potomac Division geographic area, and, lastly
- Have an interesting life outside of their modeling endeavors.

I believe we have hit those goals, but the well has started to run dry. Without suggestions, this column will wither. Many of you who read this column have been immensely helpful and your time is greatly appreciated. When I started this column I felt I knew some of these folks. Through them and with your help others were surfaced.

But now we need your help identifying more. Preferably I'd like to retain the criteria noted above. So your help is requested. Please send your suggestions to me at risekera@gmail. Many thanks in advance. **I**



Roger Sekera, a retired executive search consultant, lives in Potomac Maryland. His HO scale Clinch Valley Lines (CVL) models railroad activity (heavy coal balanced by general merchandise traffic) in 1959 in the Southwestern area of Virginia. The CVL has been fully TT/TO operational for over four years.

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Not getting the bi-monthly NMRA eBULLETIN?

The new **NMRA eBulletin** comes out every other month near the 1st of the month. Either your SPAM filter is blocking it, or you need to update your email address with us. Go to <http://www.nmra.org/member/content/member-info-update>

What's in that Name? Tate & Lyle Staley

by Nigel Phillips



The picture is of a 36' syrup tanker made by Trinity, STSX reporting mark (Tate & Lyle Ingredients America, ex Staley), taken in 2005. ©Jay Brown. Reproduced under the Commons Copyright scheme. The usual load in these tankers is high fructose corn syrup or molasses. Originally a Staley tanker, they could be found as shown or later as simply Tate & Lyle. High fructose corn syrup is used extensively by the processed food and drinks industry as a cheap sweetener that keeps customers coming back for more.²

This installment of “What’s in That Name?” is all about sugar, syrup, and molasses. And it was not always sweetness and light. Mix in some in highly volatile world trading markets, government subsidies, market dumping by the sugar beet industry, cooperative rivalry between two major producers who had refineries next to each other (essentially a cartel), attempts at nationalization, and an unfriendly acquisition of an American company that had made itself open to a takeover and breakup. It’s also about how a company got out of the sugar refining business and into sweetener technology and transportation. Tate & Lyle is all about two family run businesses in the United Kingdom, one founded by a Scottish ship owner from Greenock, Scotland, the other by a grocer from Liverpool, England. It also a story of three ports: Greenock, Liverpool and London, which in the 19th century were all important shipping centers with large resident populations, and consequently ideal places for sugar refineries. And let’s not forget an American, AE Staley, who built a business in the Midwest on corn starch, sugar, and soybeans, that ended up being taken over by Tate & Lyle.

Henry Tate was born in 1819 in Lancashire, England. At age 13, he was apprenticed to an older brother, Caleb, who was in the grocery business in Liverpool. At 20 years old he had his own grocery store, and by his mid-30’s had expanded to a chain of six stores around Liverpool. Apparently fed up with the quality of sugar (greyish sugar loaves in those days, full of who knows what) he got into the sugar refining business in 1859 when he invested in the business of a John Wright. In 1859 he sold the grocery business and bought a sugar refinery of his own. In 1869 John Wright died. Henry inherited the business, and promptly changed the name to Henry Tate and Sons, with two of his sons, Alfred and Edwin, as partners. A new sugar refinery followed in 1872, using up-to-date techniques of carbonatation (no that’s not a spelling error, it’s a process for removing impurities from sugar liquor using carbon dioxide gas and lime), and centrifugation of sugar crystals from the liquor. In its first year of operation, using raw cane sugar imports (from Peru, Mauritius,

©Nigel C. Phillips, 2017

² And with good reason. Human physiology does not treat fructose in the same way it treats glucose. Glucose triggers satiety receptors, thus curbing appetite, while fructose does not. Glucose and fructose have the same calorific content, the result of an increase in fructose is you eat and drink more, put on weight and trigger type II diabetes. Which is good for the corn producers, the food and drink industry and the medical industry, but not for you.

and the East and West Indies), the refinery “melted” 400 tons, and by 1881 it was up to 1,146 tons. The final product was packed in 2 cwt hessian sacks (112 lbs. in a cwt³), 3 cwt barrels, and 10 cwt casks. The final product was in the form of sugar crystals, which were easily weighed and packaged, a significant improvement over sugar loaves that were cut into lumps in the grocery store. This was clearly a hit with the housewives and tea drinkers.

Further expansion followed in 1875-1878 by the purchase of a derelict shipyard and wharf and the building of a new sugar refinery in Silvertown, 7 miles downriver on the Thames from London. Henry stayed in Liverpool running the Liverpool refinery; his sons Edwin and George went south to run the Silvertown business. Henry Tate licensed a patent for making sugar cubes from Eugen Langhen (Köln, Germany) in 1875, and the first year of production saw 214 tons of raw sugar processed into cubes. This increased over the next 25 years to the extent that loaf sugar was ousted from the marketplace. The combined sugar melt of Liverpool and London was up to 2000 tons by 1900, all of it from imported raw cane sugar.

Henry Tate, like many Victorian business barons, was a philanthropist, making numerous charitable donations when business was good. Tate Britain Gallery (yes, that one, formally known as the Tate Gallery) in London, England was founded by an endowment of £150,000 in 1896 (\$1.6 million today), along with numerous paintings from his personal collection to get it started. He was also investing heavily in Argentinian railways at the same time. Officially made a Baron (along which goes the title “Sir”) in 1898 for his philanthropic works, he died in 1899.

Let’s now move on to the next name. Abram Lyle. Abram Lyle (1821-1891) the Third (his father and grandfather were also called Abram) was born in Greenock, Scotland (down river from Glasgow). He started work at 12 years old as an apprentice in a lawyer’s office, but quickly moved to work for his father, who had a cooperage yard. The business was successful enough that Abraham Lyle entered the shipping business as a partner with John Kerr, who was already carrying coal to the West Indies and returning with raw sugar for the Greenock sugar refineries. This resulted in ill-founded accusations of slave trading, but this was after 1833, when slavery was officially abolished in the UK, dominions, and territories. After an unsuccessful venture shipping salted herring in barrels to the West Indies, they took over the Glebe sugar refinery⁴, using the Kerr fleet to ship coal out and sugar back⁵. John Kerr died in 1872, and Abraham Lyle ended up with his own fleet of square-rigged, steel-hulled ships (Lyle Shipping), which had increased from four in 1872 to 10 by 1884. He also bought out the remaining partners in the Glebe refinery, now known as Lyle and Sons (all seven of them). The fleet was sold in the 1890’s. Abram Lyle wanted to expand, but the Greenock Harbor Trust in 1880 refused to provide an exclusive discharge point for the sugar, this refusal coming after considerable philanthropic investments by Abram Lyle in the harbor infrastructure as a means of generating jobs for the region. Talk about shooting yourself in the foot! New premises with adequate shipping access were desperately needed. The refusal of the Greenock town fathers to provide a discharge point for Lyle was a major factor in the gradual death of sugar refining in Greenock.

So, where is a good place to refine sugar? Greenock workers didn’t fancy moving to Liverpool (traditionally an Irish city). That left only one other place: London, of course! And almost next door to the Tate’s land, wharfs on the Thames for the ships to unload raw sugar, and storage sheds in Plaistow, just upstream from the Tate refinery, were bought in 1881. Two sons were sent to London to get the site up and running: Abram (the Fourth) and Charles Lyle. Abram Lyle (the Third) had major financial difficulties during

³ A cwt here is a “short cwt” and is 100 lbs. Much more logical than the old avoirdupois system

⁴ The story goes that the owner of a shipment of sugar could not pay the shipping fee, and used the cargo as payment instead. So what do you do with a thousand tons of sugar? Obvious, buy a sugar refinery!

⁵ “Coal to the West Indies? What madness is this? It’s hot enough as it is”, I hear you cry. Sugar cane has to be crushed and raw sugar made by concentration of the juice and crystallization, which requires lots of energy and heat from steam boilers. What is left is molasses, hence all that Caribbean rum. In addition, all that cane had to be cut by hand and transported, usually by narrow gauge steam railways, to the sugar mills. Bagasse, the cane husks, was used as fuel, but there was never enough, and it’s of low calorific content. Moreover, this was the infancy of coal-fired steam ships on the high seas, and the Royal Mail packet boats insisted on home dug coal. Greenock is next door to the Scottish coalfields, the coal was actually profitable ballast for the ship owners. 100 years earlier and they were using slaves from West Africa and plying the “golden triangle”.

all of this. A massive European sugar beet crop in 1882 in conjunction with German and Austrian government export subsidies dropped the bottom out of the sugar market and resulted in the Lyles having to renegotiate a Bank of Scotland loan for the construction of the refinery⁶. This took longer and cost more than planned; London sits on clay and gravel beds, so deep foundations to a stable gravel bed and/or massive pylons are required for the construction of anything substantial. The refinery was finally up and running in 1883, with the first sugar “melt” in January of that year.

Henry Tate and Abram Lyle never met, and after their deaths their respective families continued to run the businesses. Tate became a public company; several sons of Henry Tate were directors with reporting managers in Liverpool and London. Lyle remained a private business until the amalgamation with Tate, and had a very different management style in that directors (sons, grandsons, great grandsons, and later incomers) were managing directors, directly responsible for running the business. Everybody had to do an apprenticeship in the refinery and learn the business at first-hand before being deemed fit to be a director.

Lyle and Sons specialized in “Lyle’s Golden Syrup,” essentially a by-product of the sugar crystallization process.⁷ Tate and Sons’ specialty was in sugar cubes, both companies also produced various grades of granulated sugar (brown through yellow to white). The two companies were careful not to tread on the other’s specialty markets (which often led to public criticism that they were operating a monopoly). Both companies developed research and development laboratories, and introduced what we would call quality control and quality assurance procedures to maximize production and ensure uniform quality. At one point, the Lyles heard that the Tates were going into the syrup market: a cube making facility was promptly built at the Lyle’s, word got to the Tates, and nothing more was heard of the planned syrup facility. Equanimity returned without any communication between the two families ever having taken place.⁸

The two companies started amalgamation talks at the instigation of the Tates, who had not come out of WW1 in a strong position. These started in 1918 when both companies were starting to overcome the aftermath of the war. Sugar production in the UK prior to WW1 was up to 90% beet sourced, most of it from Europe. The UK was reliant on a 100% sugar cane supply during the war. Lyle had the foresight to stockpile sugar in early 1914 as a precaution. The government took over the stockpiles and sugar production (classified as a strategic food), and paid the refiners a profit based on the 3-year average for granulated sugar prior to the war. Lyle had a better profit margin than Tate (with double the melt efficiency), and its sales of the by-product Golden Syrup were not regulated during the war. Negotiations went on until 1921, with Tate, with around 100 shareholders, taking over Lyle in a complicated share exchange and goodwill purchase that resulted in a 50:50 ownership. Charles Lyle, one of Abram’s sons, was the first Chairman, and the new company was called Tate & Lyle. It was a very complementary and in many ways synergistic amalgamation, Tate specializing in cubes, Lyle in syrup, Tate was stronger on innovation in refining

⁶ European governments routinely taxed sugar production as a means of controlling output and consumer prices. Tax rebates were given when sugar was imported. Bumper sugar beet crops would mean greater tax rebates to encourage exports. The European producers dumped their excess on the UK, which had weak import controls. A source of considerable concern to UK sugar refiners, who also had to deal with the vagaries of cane sugar production (which often fluctuated between feast and famine depending on the weather, insect attacks, and shipping, a lot of which was still using those square-rigged cargo ships and dependent on the vagaries of the weather). The Lyles were forced to sell six cargos of Java sugar at a loss of £15, 000-£20,000 per cargo - £165,000-£220,000 per cargo at 2016 prices (\$214,000-\$285,000). Not the sort of thing you want when you have just taken out a £100,000 loan to build a refinery (£1.1 million at 2016 prices, \$1.43 million). The directors (the Lyle family) did not take salary and wages were cut in the factory to keep things going.

⁷ You can still get it today. My local Giant store always has some, along with Lyle’s Molasses. Much used in the 1950’s when granulated sugar was still rationed or in short supply in the UK, most of it going to the food industry. One dessert my mother used to produce from essentially nothing was “syrup tart”, involving a pastry base, toasted stale breadcrumbs, and Golden Syrup, baked in the oven and served with custard. We also got “syrup sponge” at home and at school. Often.

⁸ The Tate and the Lyle directors took the train from London to their respective refineries and back on a daily basis, they would always occupy different carriage compartments and never spoke to one another.

processes, Lyle was stronger on engineering, and one additional beneficial outcome was a stronger R&D department.

Tate & Lyle went into sugar beet production in the UK in the 1930's, under a government-sponsored program to make sure another war would not jeopardize sugar availability (U-boat attacks had resulted in severe shortages). After convincing farmers to grow sugar beets and encouraging UK sugar refiners to build refineries, the outcome was the formation of a single corporation, The British Sugar Corporation (BSC). This government-controlled corporation, formed by the forced acquisition of the privately funded refineries from Tate & Lyle and other UK sugar refining companies, used homegrown sugar beets for extraction and refining.

Tate & Lyle invested heavily in sugar cane plantations in the Caribbean (Trinidad and Jamaica) and East Africa (what was then Rhodesia, these days Zimbabwe, which lead to justifiable accusations of supporting apartheid) after WW2. This search for stable sugar cane sources was a response to getting its fingers burned financially and being effectively barred from access to sugar beet production in the UK. Tate & Lyle became increasingly involved in sugar and molasses transport (it had been actively developing vertical integration with major transport divisions since the 1920's), and research and development. It funded a sugar research unit at what is now Reading University in the UK in the 1960's, and supported the development of synthetic sweeteners at Queen Elizabeth College, University of London in the 1970's⁹). After fighting off a government move to nationalize the sugar industry in the late 1940's¹⁰, the sugar business was a good place to be in during the post-WW2 boom (all that processed food containing lots of sugar), and Tate & Lyle went on a buying spree of other companies. One of the companies targeted in 1988 was the starch and sugar business of the AE Staley Manufacturing Corporation in the US.

And that leads us into the last name in the saga, Augustus Eugene Staley (1867-1940). He was born in North Carolina, and was the consummate entrepreneur. Leaving school at 14 to work on the family farm, he found buying and selling was more to his taste. At age 16 he was on the road, buying and reselling food products, and founded a sales company for starch in Baltimore in 1898. At the turn of the 20th century, he was buying bulk starch at 2 cents a pound, repackaging it under his own brand name of Cream Starch, and selling it at a profit for 5 cents a pound. The company was incorporated in 1906 with friends and customers as investors. Understandably, his bulk suppliers objected to their retail products being undercut in price, so they joined together and cut-off his supplies. Stanley's response to this fine example of free market economics was to buy an inoperative cornstarch plant in Decatur, IL, for \$45,000 in 1909 and start making his own starch in 1912 after a refurbishment of the plant with stockholder investment. WW1 saw the company, heavily dependent on exports, close temporarily, and it was only kept alive by the issue of bonds bought by stockholders and friends. The demand for starch products increased as the US was preparing to enter the war, and post WW1 saw business boom in food and household starch and syrup products (pancake and waffle mixes, glucose syrups, laundry starches).

AE Staley was a football fan, and had his own team, the 1920 Decatur Staleys. This was a semi-professional company club, and was a founding member of the American Professional Football Association, renamed to the much catchier NFL in 1922. The franchise was sold by Staley for \$100 to George Halas, who relocated the team to Chicago in 1921 and called it the Chicago Staleys. Another name change took place in 1922 to the Chicago Bears (the club shared the same ground as the Chicago Cubs at Wrigley Field, cubs are young bears, you get the idea).

⁹ Little then did I know just how close to all of this I was. Queen Elizabeth College is where I did my post-graduate research degree, and Sucralose - SPLENDA® - was being developed at the same time on the next floor of the research facility. We used a lot of sucrose in our research activities, and consumer grade (advertised as "not touched by human hands", which begs the question, "whose hands then?") just did not work due to high nitrogen and phosphate levels. A few phone calls and a visit to Tate & Lyle showed us why. It was the "sea-gull" factor, the result of sea gulls from the Thames swooping through the windows of the bulk sugar warehouse and depositing phosphate-rich guano on the "waves" of sugar below. Definitely not the brightest of birds.

¹⁰ A clever advertising campaign using the packets of sugar and "Mr. Cube," a sugar cube cartoon character, made the public aware of the potential effect of nationalization on sugar prices. I asked Tate & Lyle Sugar for permission to reproduce an image of Mr. Cube. They politely refused, citing possible confusion of Tate & Lyle Sugar with Tate & Lyle PLC and Tate & Lyle America. So, for those interested, Google "Mr. Cube and Nationalization" for the full story.

AE Staley was also responsible for the creation of Lake Decater in the early 1920's, the largest body of artificial water in Illinois. Making all those products from cornstarch is expensive on water, and the company needed a lot of it, 10 million gallons a day (5 million just for glucose syrup production). Following the threat to pull up stakes and move to Peoria and the plentiful Illinois River, the city of Decatur acquiesced and allowed Staley to construct Lake Decater.

Let's now move to 1985, when AE Staley manufacturing decided it needed to broaden its business base in what turned out to be a lateral diversification move into a plethora of products (contrast that with Tate & Lyle, who kept strictly to sugar and vertical integration of the business). The target was CFC Continental, a wholesale food distribution company based in Chicago with \$1.6 billion in sales (and a product range to match). AE Staley Manufacturing bought the business for \$360 million (clearly a low purchase to sales ratio, usually indicative of issues), and changed its name to Staley Continental. Tate & Lyle clearly had their eyes on the AE Staley Manufacturing Division of Staley Continental, and by April 1988 had established a 4.9% stake in the company. Tate & Lyle initiated a hostile takeover April 8, 1988 with an initial offer of \$32 per share in cash, followed by a higher offer of \$35 on April 26. Staley Continental fought the takeover, but the threat of possible legal action from the Delaware Chancery (where the company was registered) over the establishment of a trust fund for management compensation if the company changed ownership probably pushed Staley to the negotiating table. They were clearly expecting a takeover, just not from Tate & Lyle. And what about compensation for the workers in all of these shenanigans? As usual, there was not a lot.¹¹ Tate & Lyle were after the sweetener business (glucose syrups, high fructose corn syrups), distribution network, and rail tankers of AE Staley Manufacturing, not CFC Continental (remember, Henry Tate got out of the grocery business when golden sugar beckoned). Tate & Lyle promptly sold CFC Continental to SYSCO for \$700 million, thus significantly offsetting the purchase price of \$1.42 billion.

Tate & Lyle PLC sold its European Union sugar business to American Sugar Holdings Inc. in 2010, which is now known as Tate & Lyle Sugars. Tate & Lyle PLC has become a worldwide, specialized food ingredient and bulk food supplier business, and conducts extensive research in and commercialization of naturally sourced and artificial sweeteners and fibers. We eat and drink these every day of the year in one form or another.

Modeling notes. Not too much choice, but if you go for decals from Microscale, and unlettered (or relettered) Trinity tankers, it becomes very feasible. Trinity built over 7000 17,600-gallon tankers between 1984 and 1998 for the transport of corn sugar, liquid sugar (dextrose and fructose solutions) and molasses. Many are still in use. Atlas released Trinity 17,600 gallon tankers lettered Tate & Lyle Staley, as well as undecorated versions in N, HO, and O (2 and 3 rail versions) scale. Intermountain released 19,600-gallon tankers lettered Staley, Tate & Lyle Staley and Tate & Lyle as well as undecorated versions in HO. A quick search on eBay shows Tate & Lyle Staley, Staley and Tate & Lyle lettered Trinity syrup tankers are in the hen's teeth category, so it's probably easier to go for unlettered or other lettered tankers and use decals. There are many photos online to give you enough inspiration for a trainload of these tankers.

If you want a light-hearted but detailed take on the history of Tate & Lyle, "Sugar and All That, a History of Tate & Lyle" by Antony Hugill (1977, Gentry Books Limited, London, ISBN 0 85614 048 1) gives all the sticky details from the personal perspective of an ex-director. Long out of print, I have a copy you can borrow. The later history is well covered the respective websites of Tate & Lyle PLC and Tate & Lyle Sugars.



Nigel Phillips models in 4mm scale (18.2mm standard gauge and narrow gauge), and 7mm scale narrow gauge. He builds his own turnouts (at \$5 a pop it's a lot less expensive than RTR), and build/solder white metal locomotive kits, as well as scratch building in brass,

His primary railway modeling interests lie with the Great Northern Railway, circa 1924 (steam and electric) and 1955 (steam-diesel transition). His other railway modeling interest is the Great Western Railway (GWR) in the UK, 1945-1960. This covers the nationalization of the railways and the death of "private owner" freight cars ("wagons," "vans," tankers) after 1947.

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¹¹ And what about the workers? Well, they had a wages freeze starting after the acquisition of CFC Continental in 1985, along with long shifts and increased overtime. Presumably, this was funding the golden handshake for senior management. Poor working conditions continued after the acquisition by Tate & Lyle in 1988, and it was not resolved until 1994.

Detailing & Weathering Flex Track and Turnouts On The Workbench

by John Paganoni, photos by Mat Thompson

Detailing and weathering flex track and turnouts on the workbench allows you to do a better job, and has the advantage of working with smaller sections rather than having to labor leaning over a layout. Another advantage is that this method helps keep your layout clean. Cut and fit track according to your plan before doing details and weathering. If you are hand-laying track and turnouts, the rails can be detailed and weathered on the bench before installation.



I used Details West RB-935 rail bars at 33 scale foot spacing for this project. Details West RB-920 rigid type rail braces and Grandt Line #9003 dummy fish plates were used for the bolts in the frog. ACC cement was used for attaching

these detail items. Spreader bars are from Evergreen #218 .020" plastic rod. These are glued under the rail between the 1st and 2nd tie after the turnout points. NOTE: If you plan to use radius or straight tools for laying track, DO NOT install fishplates on the inside of the rails until after the track is installed. This creates a bit of extra work.

Tape off turnout points carefully to prevent electrical continuity problems caused by paint. Also, if your flex track or turnout has been cut to fit on the layout, consider taping the ends of the rail where the joiners will fit.

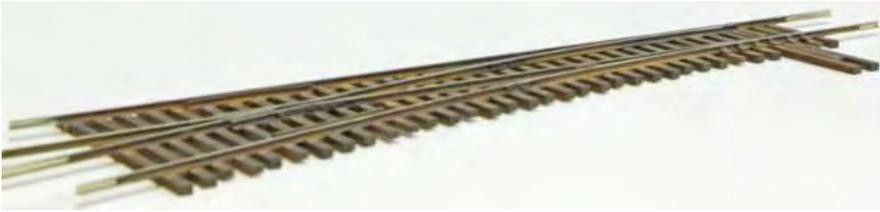
Also, WEAR EYE PROTECTION to avoid getting hazardous materials in your eyes. Use rubber gloves and always wash your hands thoroughly after completing a task.

I used an airbrush to spray Polly Scale Railroad Tie Brown (F414329) on the track and turnouts. Let this dry completely before painting the rail webs with MicroLux #29001 Rail Brown with a micro brush. Working in a well-ventilated area, like a paint booth – or better yet – outdoors, use a micro brush dipped in lacquer thinner or other solvent to clean the rail tops. Wipe the brush on a paper towel often after dipping it in the thinner to remove as much paint as possible. This process reduces scratching of the rail heads, although there will be spots where something needs scraping. A new single edge razor blade is a good choice, and it will reduce scratching the rail heads.



Next, weather the rail. First, spread a clean piece of paper on the bench to work on, as powders will fall onto the paper as they are applied to the track. Capture the dropped powder when you are done with a track section or turnout and use it again on the next piece of track. Bragdon Industries weathering powders are highly recommended for this step. Their FF-61 light rust over their FF-62 medium rust works well, although just the light rust may meet your needs. Highlighting rail bars (also called fish plates), rail braces, and other details with FF-64 black adds a nice touch. Apply these powders with a medium stiff small paint brush. When the weathering is complete, use a soft paint brush to dust off the track or turnout.

After the weathering is complete, clean the railheads again to remove all residue. Take a piece of uncolored cardboard and brush on solvent until the



cardboard is soaked, but not dripping. Carefully rub the soaked piece of cardboard on the railheads until all paint residue is removed and the railheads are polished. The cardboard is also a very fine abrasive in of itself and brings the railhead to a mirror

finish.

The rail and/or turnout is now ready for installation on your layout. Touch up after installation is needed, but fast work can be made of this.

Once installed, turnouts will need final touches such as the switch stand, a throw rod, and ballast. **JOB COMPLETE!**



John Paganoni grew up never out of sight of the Central Vermont Railway in the days of steam. He lived in Montville, Connecticut where there was a lot of activity for the paper mills and fabric mills in the late 1940's to mid-1950's. A lifetime objective was to try to capture the CV in those days of steam in HO scale, and John was fortunate enough to gather enough historical information to draft scale drawings of all the major CV facilities between New London, Connecticut and Montville. He is in the process of building a very compressed layout to feature the main interest items that recall the CV's "Golden Years."

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Track Cleaning

by Pete LaGuardia

In order to head off a five-hour debate on the proper procedure for cleaning our track, I decided to get information from Atlas.

Here are my findings: Atlas nickel silver track is actually made up of brass and nickel. There is no silver used in the rail whatsoever. Please note that nickel and brass are poor conductors of electricity. That said, the reason Atlas went to this compound was the fact that oxidation on brass rail is an insulator, whereas oxidation on nickel rail is actually a conductor. The technician at Atlas further stated that as the track tarnishes, you're actually seeing a form of oxidation. It is not dirt.

The dirty track problem arises from airborne contamination. It collects on the rail and gets picked up by the wheels of our rolling stock. Atlas recommends using a chemical to clean the track. This chemical should evaporate, and evaporation actually should remove any contaminant on the track. It's their opinion that the most important way to improve electrical contact between the rails and the engine wheels is to keep the wheels clean. They suggest that our members should clean their engine wheels often, and develop a routine on a monthly schedule.



When you see black spots on the rail, it's from using a chemical that leaves a residue on the rail that is picked up by the wheels and then transferred back to the track. Those black spots can be removed with a chemical such as alcohol. **In their opinion, Goo Gone contributes to the black spots of dirt we see on our rails. They suggest taking the Goo Gone and putting it in the trash.**

Metal wheel-sets, according to Atlas, have no effect one way or the other on improving the electrical properties of the rails. However, metal wheels are less likely to pick up dirt from the track and transfer it back to the rails.

My research shows that the Aero-Car Technology Company makes a product that improves the electrical properties between the rails and the wheels (ACT-6006 Track Cleaner & Conditioner). According to information published by Litchfield Station, ACT-6006 is compatible with the CMX line of cleaning cars. The following companies recommend AeroCar Lubricants for use with their equipment:

Digitrax
Lenz
System One
Zimo

Aristo-Craft
Athearn
Bachmann
Heartland

Life-Like
Overland
S-Helper Service

ACT-6006 is a chemical that leaves a conductive coating on the rails or wheels, depending on how you use it. Aero-Car recommends that it be applied monthly. Cautions should be used when applying this chemical over the turnouts, as a short can occur. That is why they recommend applying it to the wheels of the engine.



I am also using Sandflex blocks that work just like the erasers we all grew up with. Just rub the block on the rails and it will erase all of the dirt and crud that is picked up by the wheels and spread around the layout. I feel the abrasive blocks from Walthers or Peco leave tiny scratches in the rail head that attract dirt.

These blocks will last for years; do not confuse these with the standard sanding blocks you can buy in the store. These have abrasive material through the whole block. I use the fine one. Below are links for more info.



Contact Information.

Aero-Car Technology
P.O. Box 336, Western Springs
IL 60558-0336
703-246-9027 Phone
703-246-7648 Fax
<http://achlubes.com/shop/track-cleaner-conditioner-8oz/>

Sandflex Rust Erase
8376 Murphy Dr.
Middleton WI 53562
1-877-256-9301
<https://www.theruststore.com/Sandflex-Rust-Erase-3-Pack-P11.aspx>

Atlas Model Railroad Co. Inc.
378 Florence Ave
Hillside, NY 07205
908-678-0880 Phone
<http://www.atlasrr.com/>

Litchfield Station, LLC
1412 N Central Ave Ste. D
Avondale AZ 85323-1316
623-298-7355
<http://www.litchfieldstation.net/product/cleaning-fluid-track-conditioner-by-aero-car/>

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Pete's New York Central Western Illinois Division (WID) is set in 1953 and operates under Timetable and Train Order (TT&TO) with car cards and waybills. It fills a 35' by 35' room.

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The Durango and Silverton Narrow Gauge Railroad

by Ernie Little



Cinco Animas



Durango Station



3

In May of this year, the wife and I found ourselves visiting relatives in the state of Colorado. Of course, we took the opportunity to take a five-hour drive from Colorado Springs through the San Juan Mountains to a little town called Durango, Colorado, the home of the Durango and Silverton Narrow Gauge Railroad.

The Durango and Silverton is a narrow gauge railroad that stretches forty-five miles from Durango, Colorado to Silverton, Colorado along the Animas River through one of the many scenic areas of the state. The mineral riches of Silverton, located deep in the San Juan Mountains, provided the need for the construction of a railroad to transport materials between Silverton and Durango. The line was constructed as the Silverton Branch of the Denver & Rio Grande Railway starting in 1881, and was completed to Silverton in July of 1882. At the time, the Denver & Rio Grande was headed by General William Jackson Palmer, who was very involved with the development of the narrow gauge railroads in the area. The Silverton line was the first to use steel rail, versus iron rail on the Denver & Rio Grande. In 1981, Charles E. Bradshaw, Jr., a fruit grower and businessman, purchased the line and rolling stock of the Silverton Branch. The name of the branch was changed to the Durango and Silverton Narrow Gauge. The line was sold again in 1997 to First American Railways, Inc. Shortly thereafter, in 1998, it was sold to the current owners, Carol and Al Harper, who are the founders of American Heritage Railways. The Harpers also own The Great Smoky Mountain Railroad in Dillsboro, North Carolina.

Last Spring, we had made on-line reservations to ride the train Presidential Class, which meant that we would ride in a car named Cinco Animas. This car is limited to passengers age 21 and over, and has Casey, a Durango native, as the porter and tour guide. This car was originally built as a 30-passenger immigrant sleeper car with overhead Spartan bare plank bunks in 1883. After many restorations including conversion to a business car in 1943, this car was restored in 1963 by five individuals who comprised the Cinco Animas Corporation. Now the car is half coach/sleeper and half tables and chairs, with a large rear deck.

Our ride on the train took place on a Tuesday, and we found ourselves at the



Rockwood Station



Durango Station at 7:30 AM with a departure time of 8:00 AM. The Cinco Animas was the last car of the train, making that deck area I spoke of earlier a very appealing place to sit or stand to see the scenery and take pictures while enjoying the train ride. From Durango and then Hermosa, the line follows the Animas River for most of the route. The setting offers many spectacular sights which include waterfalls (picture 3) cascading from the sides of canyons, wildlife, abandoned silver mines, and many areas where the rail right-of-way drops off significantly to the river below. The river normally flows at a rate of around 400 cubic feet of water per second in the month of April to a high of 5,000 cubic feet of water per second in June when the snow runoff is underway. Due to the topography of the route, this allows for a view of gentle water in the flat areas and raging rapids where the river drops rapidly in elevation. Durango and its immediate surroundings are on an area of level plain from which the route continues uphill to Silverton. For approximately the first four to five miles the route followed what appeared to be a lazy river in a valley with beautiful mountains on both sides. Then the climb to Silverton started, and in place of the varied grasses in the valley, rock cuts and many different species of trees came into sight.

We then came to Rockwood (picture 4), a depot on the Durango Silverton Line. Here is where the railroad keeps its maintenance-of-way equipment and other track-related supplies. The Durango keeps firefighting

equipment and staff here due to the fire danger created by possible sparks from the steam locomotive. They patrol the line in a small two-person speeder following the train as it proceeds along the line. It was here that we noted that there was a helicopter following the train also. Casey told us the company has an observation helicopter that also patrolled the line for fires. This is also the last time we saw a highway until we got to Silverton, as most of the rail route is at least 1 to 2 miles from the road from Durango to Silverton. If you want to see wilderness, it is here – from Rockwood to Silverton on the rail.

We proceeded through the first of many rock cuts (picture 5) that are just a little wider than the train, and crossed the Animas River for the first of five times on the route. The picture was taken after we went through the first railroad cut, approximately 40 feet deep, just outside Rockwood.

About 20 miles into our trip, we see the Tacoma power plant, a turbine electric-producing plant. It was built in 1904 to supply power for the mining operations in the Silverton area, but still operates, providing power to the residents. Casey told us that the plant got its name due to the foreman of the construction company that built the plant. When the turbines arrived from the factory, by rail, the shipping boxes had been shipped to Tacoma at one point. He deduced that therefore the power plant had to be the Tacoma Power Plant.

Next, about 25 miles out of Durango, we saw the Tall Timber Lodge, (picture 6) a resort only accessible by the Durango and Silverton. Until recently you could ride there, stay in a five-star resort, and then return



to Durango. The resort had operated for at least 24 years as a five star resort, but now is a site where you can soar through the trees on one of many zip lines that have been installed. The owners now offer you the opportunity to stay there and learn how to ride a zip line, They have zip lines with different degrees of difficulty to ride. You can find more information at www.soaringcolorado.com.

At approximately the 28 mile point, we encountered the first of two wyes that the Durango and Silverton has on the line. The Cascade Canyon Wye was constructed in 1981 to allow the company to turn the train around on the wye and proceed back to Durango during the winter season snowfall. The train may not be able to get to Silverton due to the amount of snow that the area experiences. From this point to Silverton there are several areas that are avalanche-prone and the railroad will not operate to Silverton when the avalanche potential is present.

Continuing along our way we came to one of the water tanks (picture 7) along the route at Nettleton where we stopped to allow the steam engine to take on water. Afterwards, we proceeded to Silverton and the end of the line – and I mean the *end of the line* as there are no bumpers, warning signs, no nothing at the end. The tracks just end in the middle of the road!

Picture 8 was taken after the train backed down to the Silverton Wye and was turned around for the trip back to Durango. The town got its name from the main industry that was located there. That industry was silver mining the primary reason the Silverton Branch was constructed. While we were exploring the town, the train backed up to the Silverton Wye and was turned around for the trip back to Durango. Silverton is located in a valley between mountains at an elevation of a mere 9,218 feet above sea level. Durango, where we started, is at an elevation of 6,512 feet above sea level – so we have gone up 2,706 feet. Durango has one paved street; the rest are gravel or dirt, not much different from the days it was bustling with activities and other things we won't talk about here. Our tour guide, Casey, told us that the graduating senior high school class last year consisted of four students. If it wasn't for tourism, Silverton would not be able to survive, as the last operating mine, Sunnyside, shut down in 1991



due to the mineral prices on the market. The town is going through a change from a silver mining town to a ski town.



The wife and I explored the town and found that there were a couple of bars, grills, ice cream stands, craft, and other retail buildings, and restaurants like you would find in an old town. There is also a museum, a jail, and a heritage center. We ate at the Shady Lady Grill (picture 9) on Blair Street and found out that it was located in the structure that housed the last operating bordello in town. At around 1:30 PM the train pulled back into town and sounded the whistle, calling all of those who were going back to Durango to board and depart.

Riding behind the steam engine (picture 10), the wife and I thoroughly enjoyed this scenic train ride. We left Durango at 8:00 AM, went to Silverton and returned to Durango at approximately 6:00 PM. The train went about 15 to 20 miles per hour most of the time. Our porter and tour guide, Casey, was a young woman who had worked for the train company for about ten years and provided a significant amount of history about the railroad and the car we were riding in. We were served soda and light snack foods on the train while traveling in both directions and if you wanted, Casey had a well-stocked bar and was capable of making just about any kind of drink you could ask for. The scenery was awesome,— and in combination with the interaction with the others passengers — made for a day we will not forget. More information regarding the Durango Silverton Narrow Gauge Train can be found at www.durangotrain.com. **I**



[Return to Bill of Lading](#)

Ernie Little is a retired member of the Prince William County, VA Department of Fire and Rescue and resides in Manassas. His 12 foot by 20-foot HO railroad is the Norfolk Southern. He is active in the NMRA achievement program.



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Bruce Strickland

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Around the Bend

Ready to share your layout with fellow enthusiasts? Well, we would love to see it. Currently, the schedule is open, and we are taking requests to host layout tours for Fall 2017 and 2018. Your layout does not need to be complete; in fact, it is often better that way. When is a layout ever complete anyway?

Hosting an open house is also a great way to meet other model railroaders in the Potomac Division area. And it is not a big deal! The Potomac Division sponsors tours of members' layouts approximately once every month. They are held on a Saturday from 1 pm to 4 pm. The Division 1.) can provide you with pointers for preparing your layout for the open house, 2.) will advertise it on the Division web page, 3.) will remind the membership about it a week before it is scheduled, and 4.) will provide a greeter to greet visitors, have them sign a guest register, and show them the way to your layout.

So if you are ready to have some great folks over to compliment your layout and to share some good stories, shoot Tom Brodrick an email at Layout-Tours@potomac-nmra.org or give him a call at (301) 253-

0558. 

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Operations Initiative

The operations program, similar to the open houses, continues to provide an opportunity for division members to experience operations as practiced on layouts around the division.

If you've never participated in an operating session, these are excellent opportunities for you to try your hand at it. If you've operated before or are perhaps even a grizzled veteran, these are all enjoyable layouts to operate on. If you'd like to participate, or have questions, E-mail Bill Mosteller wsm@greatdecals.com.

Roger Sekera hosted an operating session on his The Clinch Valley Lines on Saturday, September 9, 2017. Operators included Jim Kinder, Herb Biegel, Jerome Skeim, Rich Steinmann, Roger Sekera, Bill Mims, Brad Trenkamp, and Steve Lee.



Andrew Dodge is hosting an operating session on **Saturday, November 18th, 2017**, on his Colorado Midland Railway, by starting at 10:00 AM. The railroad is based upon the prototype Colorado Midland in the fall of 1897. It depicts the 2nd District between Leadville/Arkansas Junction and Basalt, Colorado, and the line's operations over the Continental Divide. Constructed in O Scale Proto 48, the layout operates with 11 steam locomotives and approximately 50 passenger and freight cars, which are all scratch built. This O Scale railroad operates with an eight-nine-member crew based on TTTO system used by the Midland in 1897. Included in the operations will be the use of a simplified Railroad Morse Code telegraph system that does NOT require any knowledge of the code because "cheat sheets" are located by each telegraph key. Crew member's jobs will include a dispatcher, station agent with good detail oriented skills, road crews, switcher duties at Arkansas Junction and Basalt, branch line crew for Aspen, and crew for helper service. All needed paperwork is located on a sliding shelf at each station. The railroad is a low traffic density system, but the crews will have to keep track of their locomotive's coal and water needs. Trains are radio controlled using the NCE DDC system.



The railroad room is approximately 1,000 square feet with a duck-under to enter the room.

Constructed for the needs of an average adult, the layout ranges in height from 40 inches up to 62 inches. Almost all the isles in the train room are in the 36 inch range or wider with only one short area narrowing down to 25 inches. The home and railroad

spaces are not handicapped accessible. Read more about operating the Colorado Midland: http://mer-nmra.com/MEReLocal_Files/2017/elocal-v72i05-2017SeptOct.pdf.

Brian Sheron has graciously invited us to return to his Long Island Rail Road (LIRR) for another operating session on **Saturday, December 9, 2017, 2:00 pm to 4:00 pm** in Poolesville, MD. The format is a 30 minute orientation, and 90 minutes of operating time. Brian's last operating session is described at http://potomac-nmra.org/Operating%20Groups/Prior_Sessions.html#January_28_2017. He has also produced a clinic on his recent expansion including a car float operation, which you can download at <http://potomac-nmra.org/Clinics/BrianSheron/Expanding%20LIRR%20PJ%20Branch.pdf>. This LIRR car float in Long Island City,

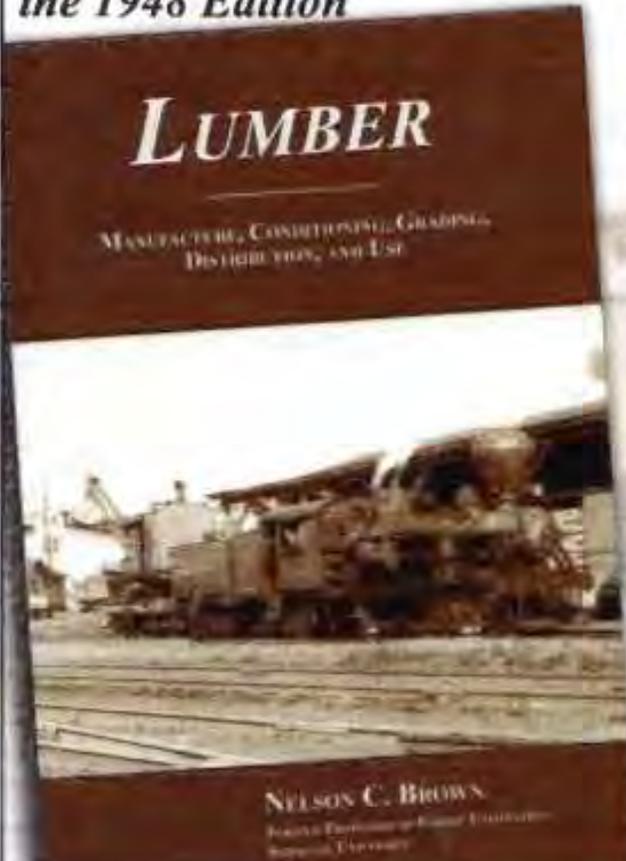


includes the yard float yard, two car float bridges and gantry cranes, and two 36" long car floats that hold 14 cars each, all of which makes for very interesting and fun switching.

Register by sending a check for \$5 made out to Potomac Division, NMRA to Bill Mosteller, 3306 Parkside Terrace, Fairfax, VA 22031. The nominal fee helps to defray incidental costs with carrying out this initiative. **I**

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Layout Open House — Nicholas Kalis's Oahu Sugar Company — 1944

Where:

When:

Note: The house is not handicapped accessible, but an elevator is available

Rationale

Nick has modeled the three-foot narrow gauge Oahu Sugar Company as it appeared and operated in 1944 under wartime conditions. This layout demonstrates how the techniques of European exhibition layouts can be applied to an American semi-permanent layout. Two themes will be evident — sugar cane operations and WWII as it affected the home front.

Subject and Scale

Benjamin F. Dillingham

founded the Oahu Sugar Company (OSC) on 20 acres of land leased from James Campbell in the vicinity of Waipahu. In 1897 its first locomotive arrived, and in 1899 the first sugar cane was harvested. Additional locomotives then followed. The plantation grew to over 12,000 acres of leased land. By 1939, the railroad reached sixty miles of three-foot gauge track plus an unspecified amount of portable track on which 939 plantation cars (860 four-ton cane cars, fifty flat cars, and 29 other cars) operated. During WWII, over 2,800 acres were commandeered from the OSC for a POW camp for German prisoners.

Nick decided to model the OSC railroad as it appeared in 1944, as there are photos available of ammunition trains showing the OSC towing bombs to be dispersed in sugar cane fields. After the surprise attack on Pearl Harbor, the Navy decided that it would be prudent to separate bombs from planes and ships in the event of another attack. Also, the Kipapa Airport was operational in 1944, which will be depicted on Nick's backdrop with a gate modeled in three dimensions. By late 1950 the railway system was eliminated from the plantation.

Nick models in Fn3 scale. He has modified a Bachmann Porter engine to run on batteries, and has scratch built a tender for it as well.

Content and Scope

The layout consists of various Layout Design Elements (LDEs), including the town of Waipahu and the engine terminal. Another LDE is a trestle (appearing in a photograph of 1946) which Nick has scratchbuilt. Layout Design Elements is a term coined by Tony Koester to describe prototype scenes that can be adapted for use on a model railroad. Using a few LDEs is a way to avoid writer's block, so to speak, when designing a layout — as opposed to just staring at a blank sheet of paper and not knowing where to begin in one's design.

Modeling Standards

Nick has scratchbuilt most of the structures on the layout. The sugar cane cars are produced by Shapeways based on drawing by the late Jim Dunlop as they appeared in Bob Brown's *Narrow Gauge and Shortline Gazette*.

Operational Design

The layout is a continuous oval with some possibilities for realistic operation built in.

Construction

The layout was largely built in Nick's garage and then assembled and completed in the finished basement.

Presentation and Visual Design

The layout has skirts made of white paneling with a valance and fascia to match the room walls.

