

THE O SCALE RESOURCE

NEWS, REVIEWS, INFORMATION TO USE

Vol. 2 No. 5
May/June
2015

Detailing A Southern Railway FP-7
DCC Programing Sunset FP-7
Howard McKinney's Layout
Practicing Weathering
Chicago Model Contest
Chicago O Scale Meet
And much more...



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May-June 2015 Vol 2 #5

Welcome to the online *O Scale* Resource magazine. The magazine is presented in an easy to use format. The blue bar above the magazine has commands for previewing all the pages, advancing the pages forward or back, searching to go to a specific page, enlarging pages, printing pages, enlarging the view to full screen, and downloading a copy to your computer.

Front Cover Photo

Best in Show winner built by Harmon Monk. Model of a Chicago & Alton Harriman Heavy Pacific Steam Engine. See more of this, and all the contest entries, in this issue.

Rear Cover Photo

A scene from Howard McKinney's D&RGW Railroad, Victoria to Notell Division.

Bill Of Lading

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The Model Railroad Resource LLC publishes *THE O SCALE RESOURCE* also. Be sure to look at it. There are many articles in our magazines that are not scale specific and will be of interest to you. Click this announcement to see the magazine online.

Editorial Comment

Spring is here and soon it will be summer. The month of May here in the northern hemisphere is usually time to dig out and start yard work. The kids are getting out of school and vacations are coming up. There is a lot to do right now. Don't forget to take time out and enjoy your hobbies. They are a great way to get away from all the stress in life. There is always something you can do with your models, even for a few minutes. Stock up on detail and scratch building supplies. When you need some quiet time, add a few details to the layout or some model you are working on. Like I said, there is always something you can do. We have some ideas and inspiration in this issue.

Before we start, let's go to the Chicago O Scale Meet. We were in attendance, and it was another good show. Mike Hill said that around 1000 people came to the show. Take a look at some of the items that were for sale and some of the people who were at the show. Next, we have an article on Howard McKinney's layout. Howard is always on the layout tours for the O Scale West Show. Bob Stevenson and I stopped to see the layout again this year. While I was there, I was talking to Frank Markovich about the layout and he thought we should do an article on it. I thought it was a good idea, and Frank agreed to would write something up for us. This article personifies the comradery in the hobby, how some of our friendships develop and how we meet. After we see Howard's, layout we move back to Chicago. **THE O SCALE RESOURCE** hosted the model contest this year again. Dan and Amy did most of the work at the show, and we had over 30 entries this year. Thanks to everyone who brought a model – they were all very good. Dan has a recap of the contest for you so take a look at the models and who built them. Speaking of nice models, David Friedlander detailed a Sunset FP-7 locomotive to match Southern Railway practice. He wrote an article for you with lots of good photos and ideas. One of the things I was impressed with was that he was able to do it all with out losing the factory paint job. When you look at his article, think of all the small projects that made it come together. These are all things that could be done in an evening or two. When you need that break from it all, here are some ideas for things you can work on. As an add-on to this article, David listed some of the things he did to the DCC settings on the model to improve his performance. Take a look at this to see what he did and how he did it. Lastly, we have an article on practicing your weathering. In the **NOVEMBER/DECEMBER 2014 ISSUE OF THE O SCALE RESOURCE**, we saw some of the work Lee Turner and Jim Booth do on steam locomotive paint jobs. These guys did not learn this overnight. It takes practice, and that's what we have in *Practicing Weathering*. This is another modeling project you can do on short notice for a small get away from the everyday stresses of life. The best part is, it can't come out wrong since you are just practicing!

Enjoy the magazine and thanks for reading.

Glenn Guerra

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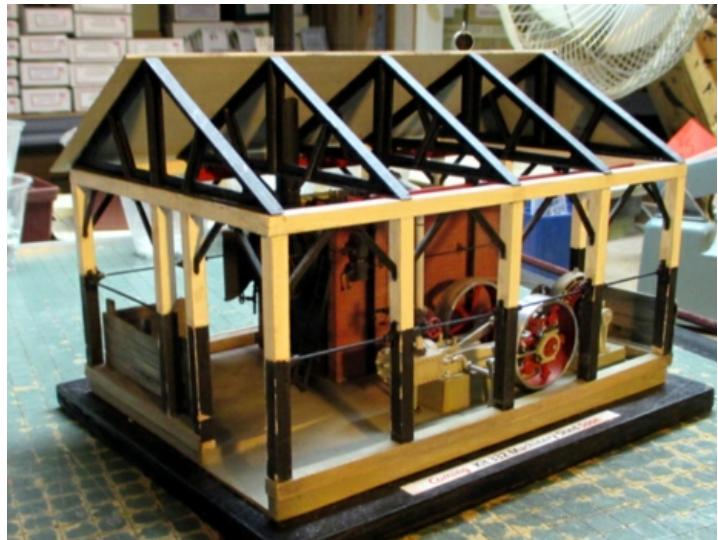
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NEWS AND REVIEWS



There is a lot of detail inside of a railway RPO car, and it was all the same as specified by the US Post Office. See the article in the May/June 2014 issue of [**THE O SCALE RESOURCE**](#) for more on the RPO service. Bill Basden from Delta Models sent us a note to tell us that he has these interior details for your car. The components are based on 1940 Postal Service specifications and will work on heavyweight, as well as, streamline cars. Bill makes interior components for a 15', 30' and 60' postal room. The kits are DM 507 for a 15 foot car, DM 507A for a 30 foot car and DM 507B for a 60 foot car. The parts are cast urethane parts and are easy to work with. [Take a look at Bill's website for more information.](#)

Talk about being in the right place at the right time. Bob Stevenson of Stevenson Preservation Lines was in the Miejer store shopping, and the next thing he knew he was in the hospital. It turns out Bob had a heart attack and passed out. He has A Fib, and the lower chamber of the heart stopped beating. There was an EMT shopping in the same aisle and the store had a defibrillator. The EMT was able to keep Bob alive until they could use the defibrillator on him and get his heart going. Good thing, because the doctor told him that type of heart attack is 95% fatal if you don't get the defibrillator right away. Bob is doing well, and now has a pacemaker. He is getting back to work, and the doctor just cleared him to drive again. He said to tell you that he has been working on the NYC Switcher project and it is coming along. There are five more patterns to get, and then it will be ready to go. [Check his website for details or drop him a note.](#)



[Leo at Crow River Products](#) sent us a preview of a new kit he is developing. It will use their existing boiler and machinery castings with a new building go with them. Leo is calling it an open sided machinery shed. This could be used on any industrial building as a power house or use it by your roundhouse. Leo said he should have it out later this summer.



O Scale Kings had a meeting at the Chicago O Scale Meet, and voted three new members into the O Scale Hall Of Fame. [Check the O Scale Kings](#) website for more details.



Joerg Harm from Germany sent some photos to Terrell Colson, and he forwarded them to us. Joerg is scratch building three Chicago North Shore and Milwaukee steeple cab electric locomotives. Don't they look nice?

TCS, the makers of the Wow sound decoders, have released their new EMD diesel sound decoder. The new Wow 101-Diesel has 31 different horns, 34 different bells, different EMD prime mover sounds, dynamic brakes, coupling sounds, 6 light functions, and 19 lighting effects. In addition, these decoders operate at 1.5 amps with a short time 2 amp peak. They will handle almost all O Scale equipment. More diesel sounds will be available in the future for Alco and other manufacturers.

The decoders have an optional Keep-Alive™ with enough capacitor capacity to run the locomotive for about 15 seconds after you pick it up from the track. This means it will run over dirty rail or switch frogs with no interruption in sound or the annoying rebooting of the decoder. [Take a look at their website for more information.](#)

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Do you have new items in the works or ready to be released? Send us the information and even a picture or two, and we'll help you publicize it here in the the News and Reviews section!

Ever wonder what it takes to produce some of the models you buy? Scott Mann from Sunset and Golden Gate Depot dropped us a note to tell you. Here is what Scott had to say.



Sunset Models and Golden Gate Depot, both managed by the same folks, is busy planning projects for late 2015 and 2016. Currently we have 3 factories producing our model trains, one is focusing on plastic production, another on Brass engines and Aluminum cars, and a 3rd located in the Philippines, on future productions from that country.

Our main design center is located in eastern China, very close to Korea in Qingdao. This design center is managed by a 30 year Korean veteran in the model train industry with roots going back to Samhongsa. He manages a team of 8 young engineers that have become so proficient at modeling our design in 3D, I often have a hard time keeping up with their corrections and suggestions. With the use of the Internet, they are finding pictures and information I miss, making our models even more accurate. We also employ YOU, our loyal and enthusiastic customers, to get information that is important to you and your modeling experience, into the designs of these models. For your incredible support and help, we thank you.

The 3D design process allows us to move the models along virtual track to visualize any parts that may interfere and avoid costly and time consuming mistakes in production. Once approved, the designs are transferred to our main factory also in the Qingdao area. This factory is managed also by a 30 year Korean veteran managing a team of 5 expert model train manufacturing managers. These managers specialize in prototype engineering, electronics, painting and lettering, production processes and paint booth processes. These are our key people that put these projects together in record time. The management of this process is so important to keeping prices reasonable for our customers, and provide them a really good out of box experience, it keeps our company humming too.

I travel to these facilities every 45 to 60 days, to catch the things that make the difference between a average model and a super high quality piece we can all be proud of. During my stay, I have several meetings with the design team to perfect our designs to meet our customers expectations and provide the factory a reasonable production process.

All this comes together to provide us a good flow of product. The flip side of this is finding enough orders for these models, fast enough to keep up with the factory. For this, we thank you, our customer for supporting us over the years, and making these fantastic projects possible.

What's next? We just received our shipment of RDC cars, Timken Steam engines and Aluminum "Finish" sets. As for our production of smooth sided cars of various roads, we have "Finished" this off with these "Finish Sets". Going forward, we plan to focus on other trains, more complicated by mixed consists, with specialized cars such as the Empire Builder or North Coast Limited. There are a few others we are considering as well. The SF El Capitan was so successful, and the cars so beautiful, both myself and the factory manager want to try to make a rerun. So after these sets come out, we may offer a small rerun in the near future if there is enough interest.

The RDC car project is a two phase project. The first phase was delivered based on orders of 350 cars. Another 150 cars are awaiting follow on orders. We feel that these RDCs are so beautiful and run so well, that our customers will re-order, filling the 150 model 2nd run. We also have a custom run with our Canadian friends for BC Rail, they currently have 40 of these 150 models tied up with their order. So we are on our way to completing this project in this fall. The email contact to the BC Rail order is: Mark Horne, milhorne@shaw.ca. Please contact him if you want to get in on this special run.

The factory is requesting final quantities of the Powhatan Arrow sets, B&O Cincinnati Sets and Budd Slumber Coaches. So if you haven't already done so, reserve yours TODAY. We are closing reservations on the 27th of April. We will accept stand by reservations, and will try our best to fill all orders. There is no deposit required to reserve. But we consider your reservation as a promise to buy.

Thank you all for your continued support.

Regards,

Scott Mann - CEO Sunset Models Inc. - Golden Gate Depot

CHICAGO O SCALE MEET



By Glenn Guerra

The Chicago O Scale Meet was held March 14-15, 2015 in Lombard, Illinois. The show was well attended with attendance reported to be around 1000 people. This year there were some new manufacturers present and some others came back after an absence of a few years. For me personally, it was fun and I was able to see some people from England and Canada that I only see at the shows. Tim Daltry, whose models you have seen in *THE O SCALE RESOURCE*, came this year with his wife Hilary. After the show, they hopped the Southwest Chief and headed for California. Tim stocked up on US parts for his US modeling interests so we will be seeing more of his work in the future. In addition to Tim, Mike Calvert was there from England. Mike makes US prototype equipment in England under the name of Gilmaur Models. Phil Spencer from Toronto, Canada was also in attendance, and I was able to have a nice chat with him while visiting a layout.

We sponsored the model contest again this year. Dan and Amy worked the model contest, and Dan has a report on that for you. I was at our table for the magazine during most of the show. A lot of people came by to tell me how much they like the magazine. We appreciate the nice comments, and are glad you like what we are doing.

There is a lot of O Scale available, and going to these shows allows you to see what's out there. The hobby has always been populated with small manufacturers and their products don't always show up on the hobby store shelf. Going to a show is a good way to see these products. In addition, there is a lot of pre-owned equipment at the shows. Buying pre-owned equipment site unseen is always uncertain. When you attend a show, you can see what you are buying. There is also the comradery. Much of the time spent at the shows is visiting with other modelers.

Well enough of that, read on to see what was at the show.



Here's Allen Pollack from Fun and Games talking to some customers. Allen specializes in figures and carries many lines. If you need figures for your layout, Allen has them.

Paul Hecht from Madison, Wisconsin was an HO scale modeler and started building some display models for Ted Schnepp. The models sold well, and Paul has started assembling kits for people to buy finished models. If you don't want to put your kit together, Paul may have one already built for you.



The show has a variety of railroad related items for sale. This year, there were two people selling railroad art and there was also this display of prototype photos.

Ron Sebastian from Des Plaines Hobbies was showing these GE locomotive trucks he has just released. They are all brass kits with step by step photos for assembly.



Also from Des Plaines Hobbies are these Pullman built bi-level commuter cars. The all brass kits come with detailed instructions and trucks. Pullman also built commuter cars like this for the Southern Pacific and the Rock Island.

Rich Yoder was showing his ventilator box cars. The prototype for the car was an Atlantic Coast Line car, but similar cars were used on other railroads in the south. Rich had some of the production run detailed and painted for the variants like this Charleston and Western Carolina boxcar.





Dave Thompson from Harbor Belt Lines is showing some of his track and hand car details. Dave keeps adding to his line of detail items.

Mark Meeks from Union Station Products was showing his custom cut passenger car sides. Mark has relocated to Memphis, Tennessee, and now comes to the Chicago show.



Mike O'Connell from Chooch was showing some of his cast O Scale items at the show. Mike is an O Scaler himself, and has been working on a layout at home. I saw the start a number of years ago, but Mike keeps it a secret. He is almost ready to let us see it. As soon as he does, we will have an article for you. What I saw was spectacular. Drop him a note and tell him to let the cat out of the bag!

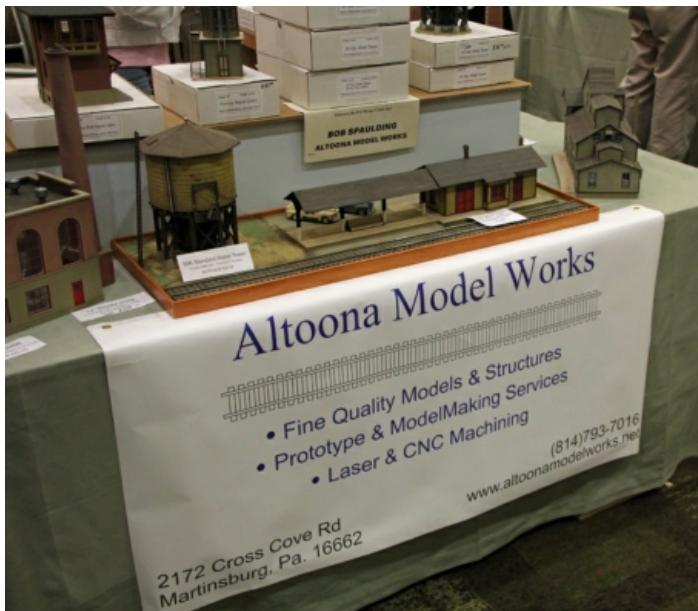
Larry Stanley from All Aboard Trains is relatively new to O Scale and is doing some nice detail items. He has telephone and power poles along with the details that go with them. The transformers for the power poles look good. Larry is working on a hand throw for switches that will turn the lantern as it throws the switch. He had a prototype sample at the show.



Norm Buckhart from Protocraft was at the show. Norm is a big supporter of things for the P:48 modeler. In the last few years, he has branched out to importing and offering decals. His imports are unique in that he offers variants of a car design with the correct details and dimensions for that variant. His decal line is quite extensive and continues to grow.

Ed Wichman of 400 Models was at the show with his C&NW stream line cars. These are accurately punched sides to represent the cars purchased for the C&NW passenger car fleet. Besides the green and yellow paint, some of the cars were painted all green with yellow striping for the Challenger trains. Still others were put in the pool with the Union Pacific and run in the UP colors for the city trains.

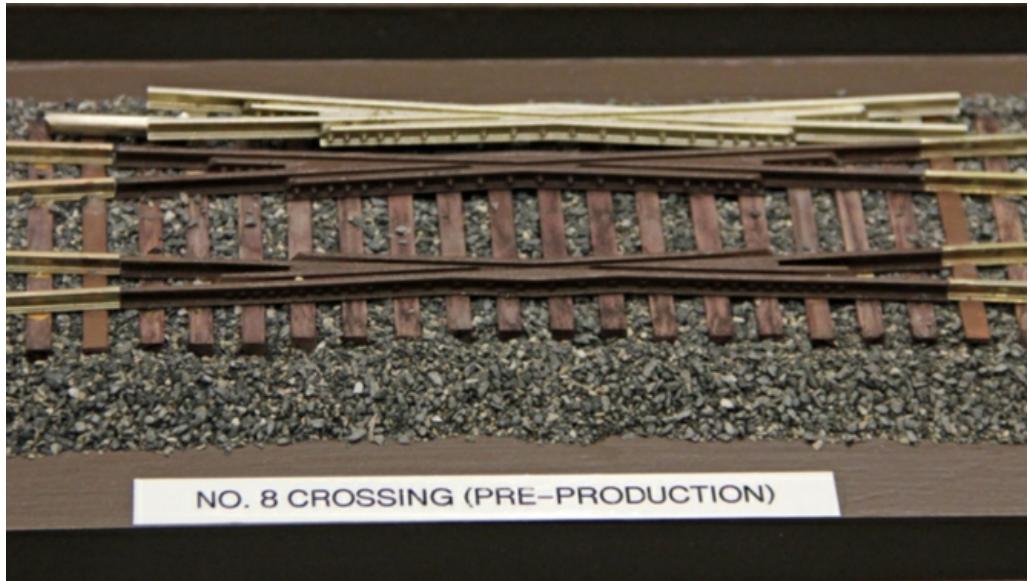




Bob Spaulding from Altoona Model Works had a large display of building kits. One of his latest items is an etched brass ladder for the side of his roundhouse. The brass etchings make a nice looking ladder. Bob sells them separately so you can use them on other buildings.



Bill McConnell from O Scale Turnouts was there showing his ready made and ready to lay turnouts. Bill is working on a #8 crossing frog to go with his #8 switches. This will be a welcome addition when planning cross overs in your terminal leads.



Also in the track department is John Pautz from American Switch & Signal. John makes components for the P:48 segment of the hobby. John's cast switch parts have the correct clearances for P:48 wheel sets and are detailed with all the correct bolts.

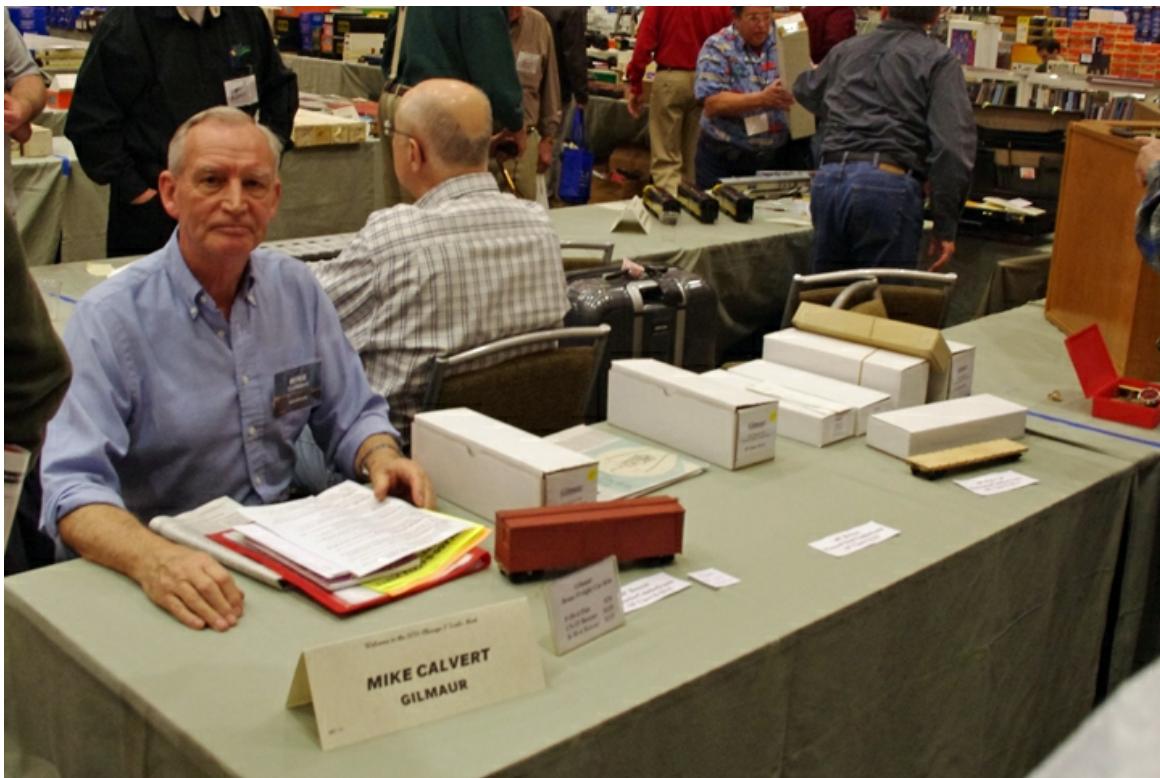




Jerry Kimble and his wife were there with a display from Atlas. They were impressed with the show, and will probably be back next year. Jerry is the sales rep for Atlas O products, and it was nice to see them at the show. They had all the latest offerings on display, as well as, the inside scoop on what's coming.

Jack McGarry from Allegheny Models was there with his wife. Jack always has a large selection of good quality pre-owned models. He is always buying collections, so check his website regularly or drop him a note to tell him what you are looking for.





Mike Calvert from Gilmaur Models had some kits and samples of his new models. The boxcar is a 1901 design Pressed Steel boxcar. These were some of the very first mass produced cars, and many railroads had them. Take a look at this model if you like older freight cars or significant designs.

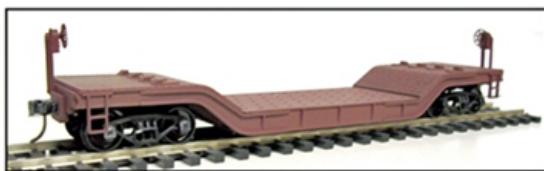


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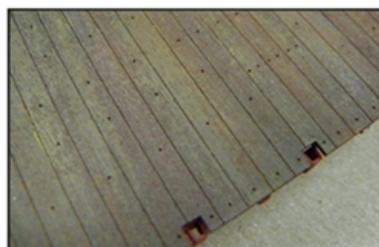
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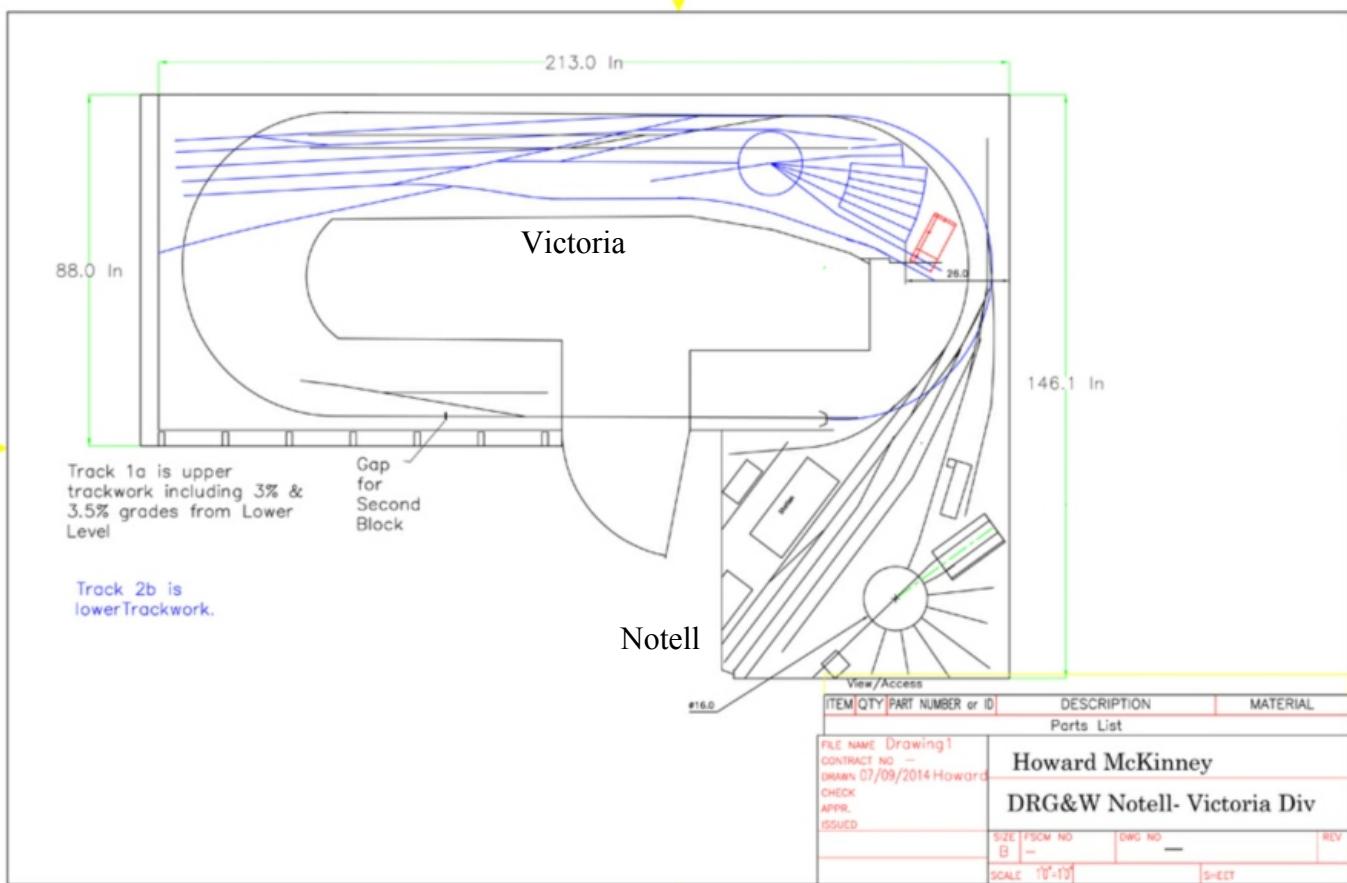
Howard McKinney operating his layout. Howard is a gracious host and always open during O Scale West. Be sure to stop by and see his layout when you are at the show.

By Frank Markovich

Model railroading can lead to long time business relationships, as well as, modeling relationships. About 10 years ago I was working at Intuitive Surgical Company (ISI) leading a test engineering team. We needed a part time mechanical engineer, and while at a Coast Division meet of the Pacific Coast Region of the NMRA, I mentioned this to Dave Connery. Dave then introduced me to Howard, and that led to ISI hiring Howard as a contractor. Howard and I have been close friends ever since working together (we both fully retired two years ago) and as model railroaders in On3. Howard models D&RG and I model the West Side Lumber Co. Howard has built a Denver and Rio Grande inspired layout. While visiting O Scale West in February 2015, Glenn Guerra asked me if I would tell you about Howard's layout, so here it is.

Howard named his layout the D&RGW Railroad Victoria to Notell Division. This railroad is a model of a Denver and Rio Grande Western narrow gauge railroad division that might have existed in the late 1930's to the early 1940's. Logging is the principal industry in the area with an emphasis on providing timbers for the mining operations in Colorado. The geographical location of the prototype would be Southern Colorado.

The layout is contained in a 7' x 19' room with 5' x 6' dog leg extension. Access to the main room is via a duck under that does lift for those having difficulty with bending over. An additional view of the Notell yard, engine facilities and town is available on a platform through an access window external to his railroad room. Approximately five visitors can be accommodated at a time.



Frank drew this track plan of Howard's layout.

The rest of the garage is occupied by Howard's workshop. In order to fit the layout in the small space, Howard decided on a point to point track plan with turntables at both Victoria and Notell for turning engines. While the layout is 3 foot narrow gauge, a connection to standard gauge track is provided at Victoria. Trains enter the layout from the rest of the world at Victoria via tunnel. The track to Victoria through the tunnel is dual gauge, as are part of the yards at Victoria. Victoria has engine facilities and is the start of the branch line to Notell. Trains leave Victoria and climb into the logging areas and terminate at Notell which is on the upper level. The layout is two level with the grade transition accomplished via 3-3.5% grade track around over one half the layout. This provides for a separation of approximately 16 inches between the lower and upper levels of the layout. At both Victoria and Notell, engine servicing and storage facilities are provided. The roundhouse and shops at Victoria provide capability for extensive maintenance of locomotives. There are 50,000 gallon water tanks at both Victoria and Notell which are part of the engine servicing facilities. There is a coaling tower at Notell and coal loader at Victoria to provide fuel for the hungry locomotives.

The railroad has been designed with a minimum curve radius for both mainline and transitions of 38 inches. This assures that even K36 and K37 locomotives will reliably operate and appear properly. The maximum mainline grade of 3.5% for tangent tracks, and 3% grade for curves, was selected as a good compromise between pulling power on the grades and the overall layout design.

The Rio Grand motive power is nearly all steam, consisting of 2-6-0's, 2-8-0's, and 2-8-2's, all based upon Colorado Narrow Gauge. In addition, geared locomotives are utilized for logging operations. A Rio Grande Southern Goose and a D&RGW #50 diesel also populate the railroad. Both Passenger and freight rolling stock, as well as, maintenance-of-way rolling stock populate the railroad. There are standard gauge cars spotted at Victoria in the yard.



Howard built his O Scale layout in the space formerly occupied by an HO Scale layout. The layout is built in a small room in his garage workshop. Victoria is on the left on the lower level. The track winds around to the upper level and ends at Notell to the right.

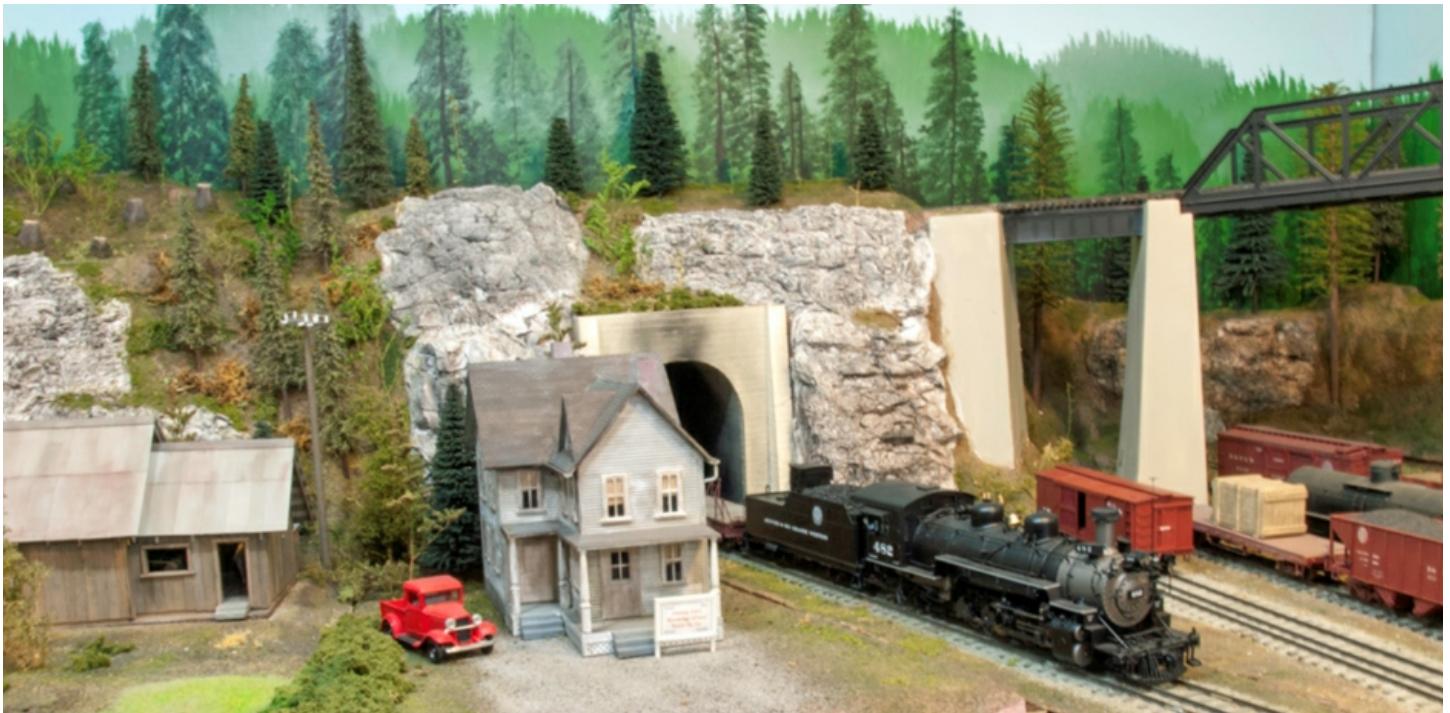
At present, an operating theme has not been detailed; but adequate switching facilities are provided, including provisions to transfer logs from a log loading camp to a lumber mill. Operation allows for 1-4 operators, but also has capability for a single operator. Most of the time Howard operates solo, but during shows and at times when one of us is visiting, he has the capability to have others operate as well. The lumber mill at Kerberville provides the capability to process logs of up to 3 foot diameter and 20 feet long. Both trimming and edging facilities at the mill provide rough lumber for further processing. A slash burner is part of the mill operation.

The Control system is DCC by NCE. There are two major power districts each powered by separate power boosters. At key turnouts, current limiting is provided via 1057 automotive lamps. This seems adequate for trouble shooting. All the control system power supplies and command stations are mounted for easy access. At the Victoria yard, a track section is provided for isolated locomotive and DCC decoder programming. This is accomplished by a switch that isolates the track from the rest of the system.

Design and construction was started in the year 2000; with bench work significantly reworked from a previous HO layout. Nearly all of the hand laid track work, scenery and back drop painting was completed by 2005. Track work, including all hand laid turnouts, with some of them dual gauge, has been completed and scenery detailing is presently at the 95% level. Structures, both kits, kit bashed and scratch built, are nearly complete. You can see some of Howard's excellent work in the photographs.



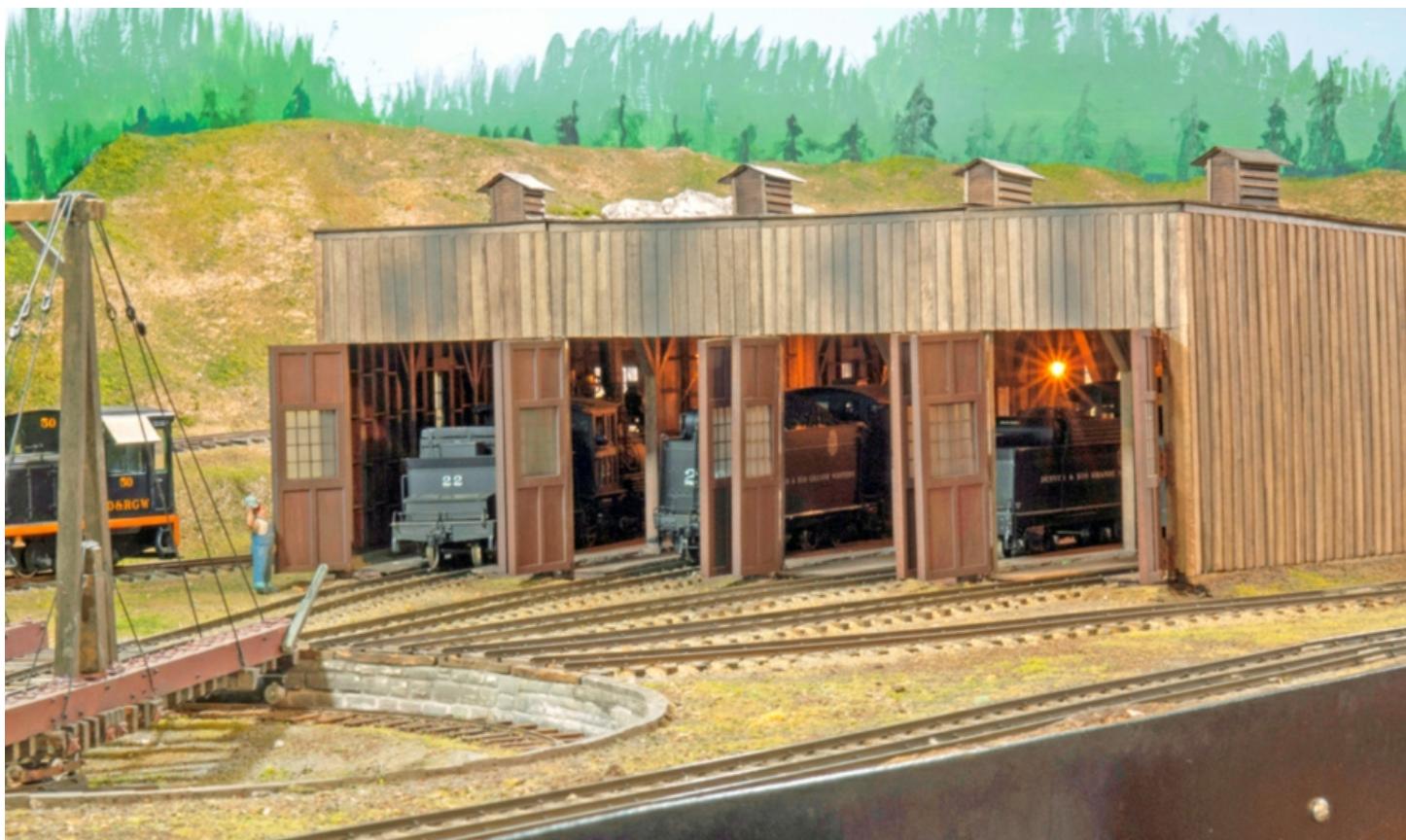
Howard's layout looking the other way from the previous photo. Victoria is on the right on the lower level.



We start our trip on Howard's layout at Victoria with a narrow gauge train arriving in town on the dual gauge track through the tunnel.



It's early morning in Victoria and the town is beginning to come to life. The lights in the buildings show off the detail work Howard has done on his buildings.



The sun is up, but the lights are still on in the roundhouse. They show the detail that Howard puts into the interior of his buildings.



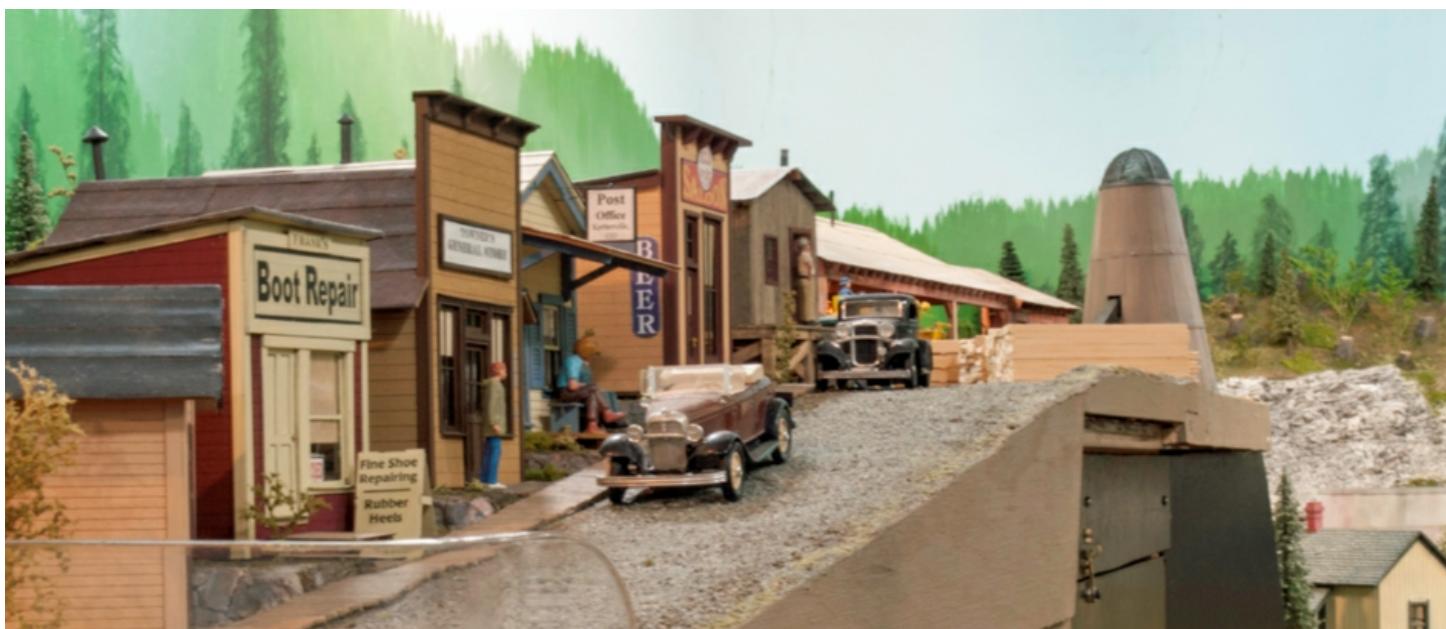
Our engine for today's trip waits by the side of the roundhouse at Victoria. The roundhouse also has a machine shop for repair work to the engines. These buildings were scratch built by Howard and feature many interior details.



As we leave Victoria and start the climb into the mountain, we exit a tunnel at West Kerberville, a small mountain town. The town is separated from East Kerberville by a gorge which is also the entry to the layout. The buildings were all built by Howard.



Dan's Country Store provides a welcome stop for travelers, as well as, a place for the locals to hang out and play checkers. It looks like they have a lot of stock inside the store.



After crossing the great gorge that is the entry to the layout, we come to the town of East Kerberville. This is the location of the sawmill and a small town has sprung up here. Judging by the sporty convertible parked on the street, I would say that someone from the home office is visiting the mill today. We came to town on the train today because it is more fun.



At East Kerberville, a logging company engine works the sawmill. From this point, the logging company has trackage rights on the Rio Grande to get access to the logging spurs.



Our passenger train passes the sawmill at East Kerberville as we leave town. You can hear the saw from the passing train. The mill is doing well, and the owners have invested in new equipment as evidenced by the yellow log loader.



As we leave East Keberville, we continue our climb into the mountain and cross the river by Victoria Falls. You can see we are now in the logging areas.



The logging company bucks the logs into 24' lengths before loading and transport to the mill. Most of the lumber goes to mining companies and there is no need for timbers or lumber over 24'. The logs will be hauled to the mill by the lumber company geared engines.



We are at the logging company loading yard. The logging company has negotiated trackage rights on the Rio Grande to this point and uses the tunnel in the background to get here. Once through the tunnel, the main line enters the upper level of Howard's layout.



The logging company has a yard and bunk houses for staging their trains of logs. The Rio Grande comes through the tunnel in the background and past the lumber yards. There is a station here that handles the lumber company movements via trackage rights to the sawmill. The agent also handles ticketing for passengers coming to and leaving the camp. After a brief station stop for passengers and to pick up orders, we will leave the logging company yard area and head for Notell.



At Notell, which is the end of the branch, we pull into the depot. The yard is busy. The logging company has trackage rights to Notell as well, and you can see some of their equipment in the yard. Repairs to the logging engines are done at Notell, and we can see a small shay on one of the turntable tracks.

The basic construction is based on “L” girder supports with plywood and homosote on top. The scenery utilizes both blue and pink foam sculpted to form the base. Numerous rock castings are used where exposed rock is seen on the layout. The rock castings were painted by Howard with acrylic paints. The scenery base is finished with ground foam, ground dirt, and other natural scenic materials. The logs are made from twigs cut off of bushes. Trees are a mix of commercial, kit and hand fabricated. Howard hand laid all the track and built the switches. The switches are #6 or greater which provides good visual appeal in the small space available. All the switches are power operated from control panels mounted in the layout fascia. The turntables are both powered with drives engineered by Howard and made in his shop. They operate by rotary switch for indexing and operate flawlessly.

Howard scratch built many of the structures, including the lumber mill complex at Kerberville, the machine shop facilities at Victoria, the coal loader at Victoria, the Notell Hotel at Notell, the pump houses at the 50,000 gallon water tanks and most of the buildings at the log loading area. Most of the buildings on the layout have complete interiors and interior lighting. While the initial lighting was incandescent, it is nearly all now CFL and becoming more LED.



When you enter Howard's garage from the house, this is the view. There is a raised walkway that allows access to Notell through the window you see. You then step down into the garage workshop which you can see part of on the far left of this photo. This allowed Howard to have access to the upper level town at Notell. Under Notell is storage for the workshop.

The layout provides a lot of enjoyment for Howard, both building it and operating it. In addition, now that Howard and many of his friends are retired, they can spend time operating the layout. I live about 45 minutes drive from Howard, and we get together to operate the layout. Howard is a very good designer and machinist, and offers a lot of help solving some of the problems on my own layout. Knowing Howard has been a help to my business life, as well as being a good friend.

Frank Markovich, on the right, and Howard McKinney having some fun operating Howard's layout.



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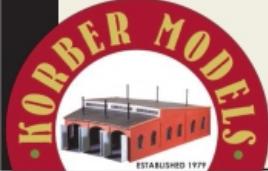
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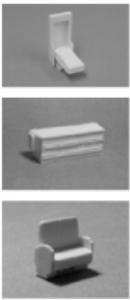
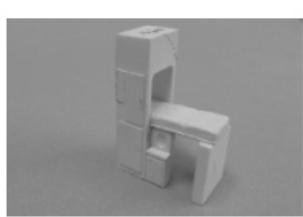
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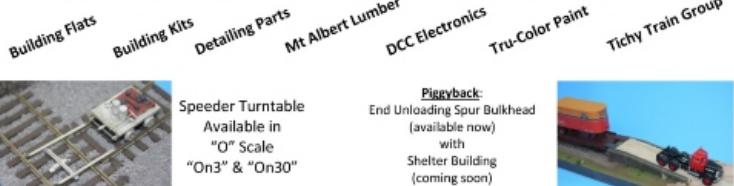
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CHICAGO MARCH MEET MODEL CONTEST RESULTS

The **THE O SCALE RESOURCE** was again proud to sponsor the Contest Room at this year's Chicago March Meet. There were a great many beautiful models entered this year. Judging was done by three judges on a point scale along with a popular vote. We estimate that approximately 300 people came through the contest room this year, and over 150 popular votes were cast. So, let's sit back and have a look at all the models in this year's contest!

DIESEL LOCOMOTIVE



First Place Diesel:

Pennsylvania Railroad GP9's No. 7216, 7026 and 7050
entered by Robert L. Morris



Second Place

William Flint: Minneapolis, Northfield and Southern Railway SW1500 No. 36



Third Place

Bob Leverknight: Baltimore and Ohio Railroad F7 A-B-A



Tommy Little
Rock Island Railroad GP7

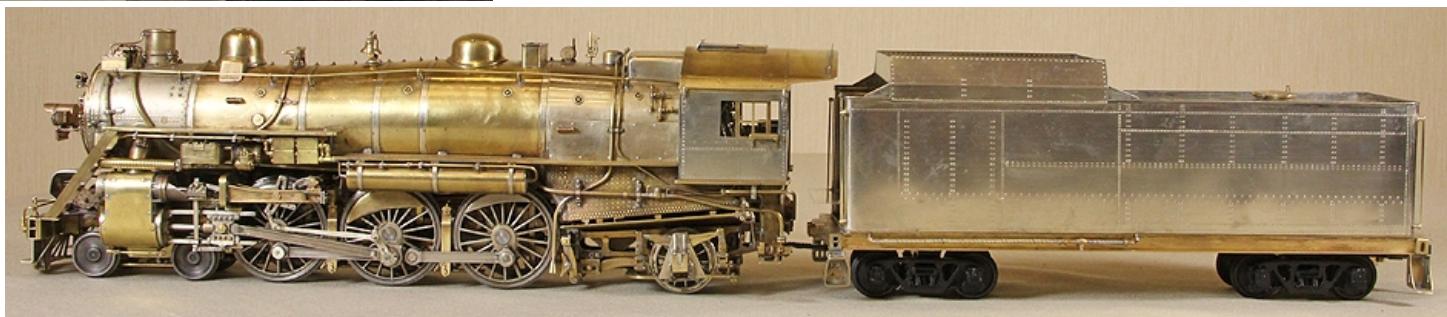


Paul Gruetzman
Soo Line No. 2500

STEAM LOCOMOTIVE



First Place Steam:
Soo Line No. 2917
entered by
Paul Gruetzman



Second Place:
Chicago & Alton Harriman Heavy Pacific
entered by
Harmon Monk

**HEAVY
ELECTRIC**



Single Entry:
Ron Rosenberg: New Haven steeple cab

**GAS
POWERED**



Single Entry:
William Flint: Northern Pacific B-3

PASSENGER CAR



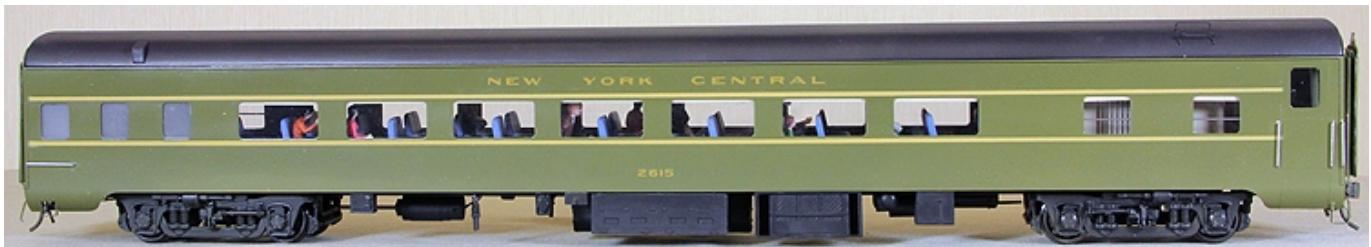
First Place Passenger Car:
Northern Pacific Coach
No. 950
entered by
William Flint



Second Place
Bill Heaton: Chesapeake and Ohio Combine "The George Washington"



Third Place
Paul Gruetzman: Northern Pacific "Penrose"



Bruce Aikman
New York Central Coach No. 2615



Robert A.H. Schultz
Pullman "Fort Canby"

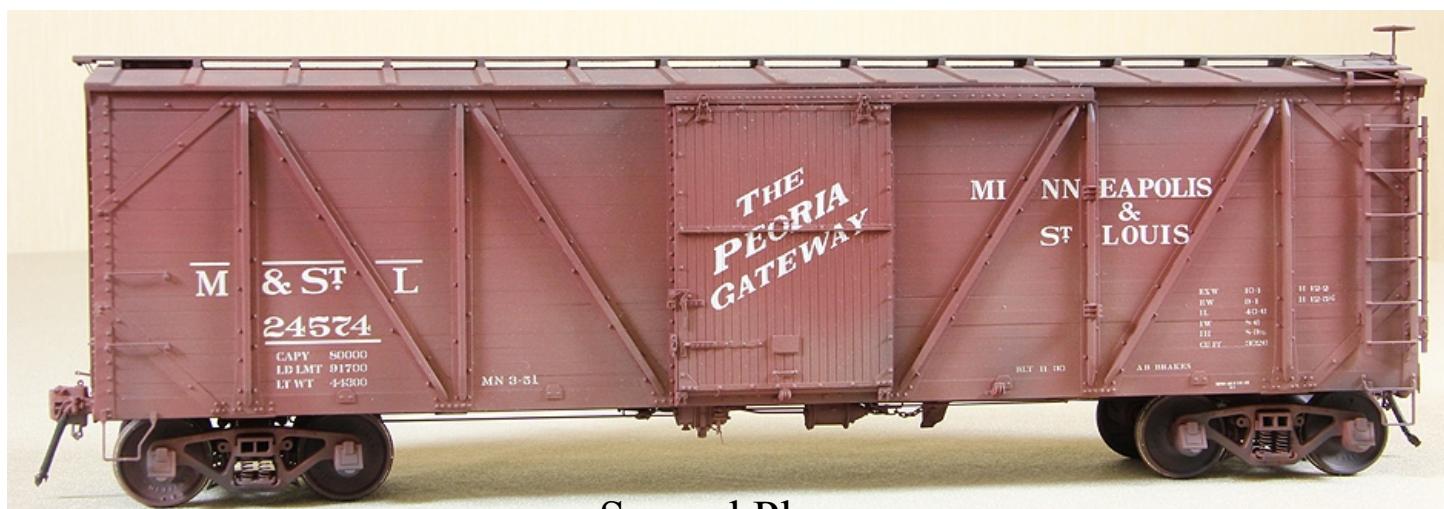


Don Robinson
Soo Line Combine No. 357

FREIGHT CAR



First Place Freight Car:
Sand Springs Railway
Boxcar No. 121
entered by
Jim Zwernemann



Second Place
Robert Leners: Minneapolis & St. Louis Boxcar No. 24574



Third Place
Robert A.H. Schultz: Monon Gondola No. 31824



Jim Kehn
Baltimore & Ohio Boxcar No. 268026



Patrick Welch
Conrail Boxcar No. 223301



Andrew Prohl
OTTX Flatcar No. 97299



Andrew Prohl
Western Maryland Flatcar No. 2631



William Flint
Texas & Pacific Gondola No. 17839



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Southern Pacific Boxcar No. 80242

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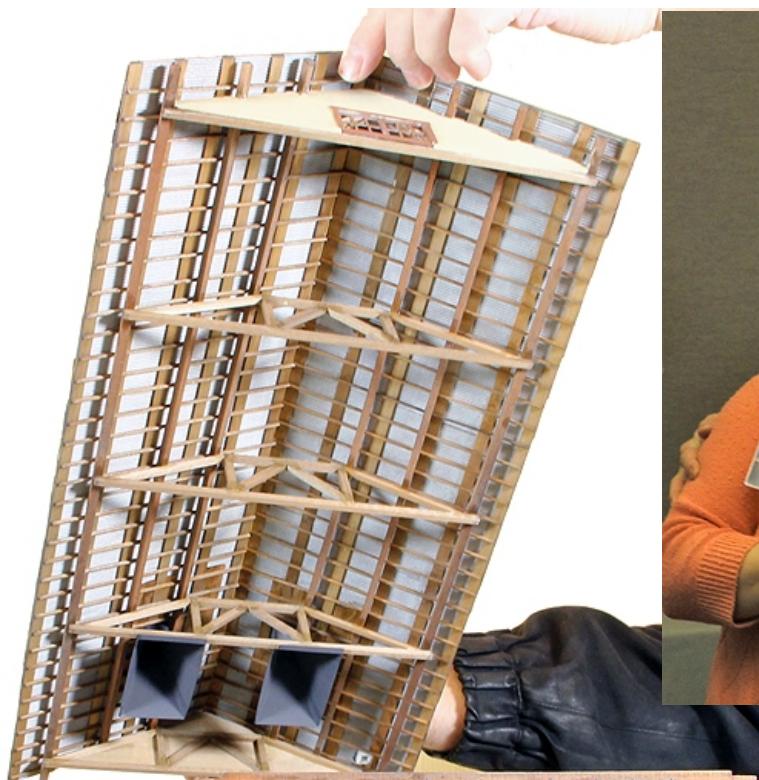
First Place Caboose:
Backwoods Caboose
entered by Jon Scofield



Second Place Caboose:
Freelance 4 wheel 'Bobber'
entered by William Flint

SINGLE
STRUCTURE





First Place Single Structure:
East Broadtop Mt. Union
Engine House
entered by Jim Kehrein



Second Place
Single Structure:
Mine Head
House
entered by
Jon Scofield

DISPLAY DIORAMA



First Place Display/Diorama:
Conoco Gas Station
entered by Phil Hodges



**Second Place Display/Diorama:
30" x 40" Interactive Diorama with operating kiddie train
entered by Ed Olson**

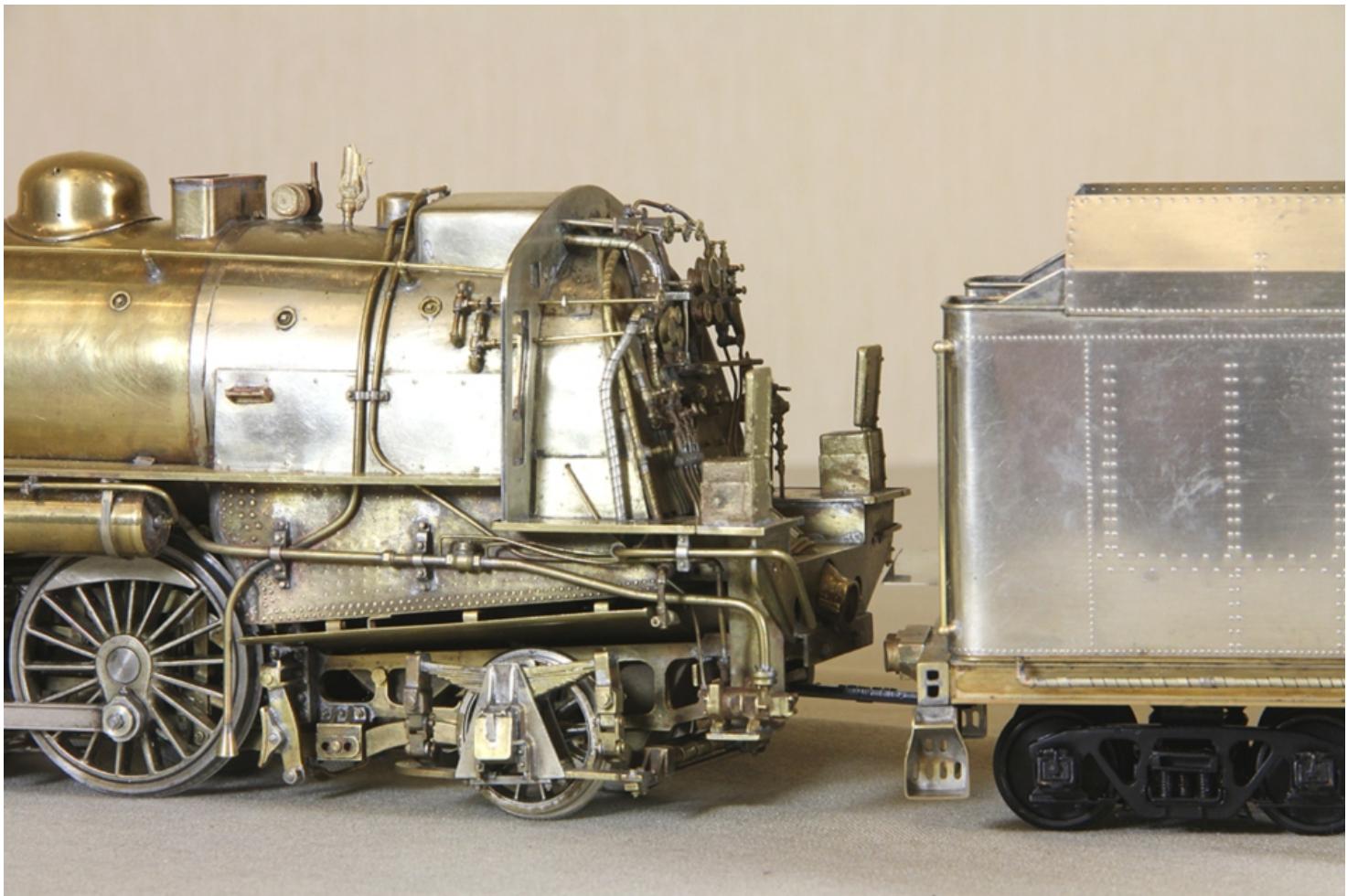
**BEST IN
SHOW**



**Best In Show *:
Chicago & Alton Harriman
Heavy Pacific
Steam Engine
entered by
Harmon Monk**



* Popular Vote



Harmon tells us that the UP and SP had these engines as well. The UP designation was P-77, SP was P-6, P-7, and P-14, whereas, the Chicago and Alton was I-6, and later became P-16. The model represents a P16bM (modernized). The time involved was probably 15 years, mostly because significant work was done only during the winter months. (Harmon is a very successful farmer so the spring, summer and fall are not the best time for modeling.)

We would like to thank our three judges, Jim Roberts, Jerry Thompson and Gary Children who donated their time to judge the contest. Also my wife, Amy, who was again nominated to man the contest area for the day.

It's not too early to start your planning for next year's contest in the following categories:

Diesel - Passenger Car - Steam - Single Structure
Display/Diorama - Traction/Trolley - Freight Car
Heavy Electric - Gas-powered - Caboose - Non-revenue

The next page is a sample of the form the judges use to give you an idea of what's included in the points total, and what the judges are looking for. Start (or finish) your projects, and we'll see you next year!

SAMPLE Contest Judging Form

Entry No.

Office Use Only

1. Construction (Maximum 40 points)

Points Awarded

Select the construction that best describes your model

- Scratch built complete model and details >90% Kit bash commercial model not per the kit plan
 Scratch built partial model and details <90% Kit built per the kit plan >90% some modification
 Modified commercial model >50% modified RTR model with some modification <20%

Name of kit or commercial model used as basis (if applicable) _____

Construction techniques – Select the methods and materials that apply to your model:

- | | | | |
|---|--|---|---|
| <input type="checkbox"/> Drew own plans | <input type="checkbox"/> Followed construction article | <input type="checkbox"/> Cut & fit wood | <input type="checkbox"/> Soldered metal |
| <input type="checkbox"/> Used proto/com plans | <input type="checkbox"/> Cut & fit metal | <input type="checkbox"/> Cut & fit card stock | <input type="checkbox"/> Made patterns |
| <input type="checkbox"/> Used kit plans | <input type="checkbox"/> Cut & fit plastic | <input type="checkbox"/> Cut & fit glass | <input type="checkbox"/> Made molds |

Describe how the model was built, complexity, and materials.

2. Detail (Maximum 20 points)

Points Awarded

Describe the complexity, difficulty, & quantity of detail parts added by you. Identify commercial parts.

3. Conformity (Maximum 25 points)

Points Awarded

Describe how your model conforms to a prototype. Include prototype documentation other than supplied with kit.

4. Finish & Lettering (Maximum 25 points)

Points Awarded

- Weathered Hand Lettered Decals Transfers Spray Airbrush Dry brush Stain
 Non weathered Describe methods and materials _____

5. Scratch built (Maximum 15 points)

Points Awarded

List all parts scratch built, noting any special refinements.

6. Total Points (Judges use only)

Total Points

Tabulated by _____ Verified by _____

Detailing A SOUTHERN RAILWAY FP-7



Dave Friedlander started with a Sunset FP-7 and detailed it to look like the engines used on the Southern Railway. He was able to add many details and modifications to the model and not disturb the factory paint job.

By Dave Friedlander

Sunset Models has done an amazing job by filling the 2 rail and 3 rail diesel markets with plastic models that have heretofore only been done as brass models. They are just as detailed, if not more so, than their brass counterparts and also come with DCC installed, saving modelers that crave sound and DCC control a lot of time. The EMD FP7 was one of first diesels to be released by Sunset under this new engineering effort. While the base model was done extremely well in terms of dimensional accuracy, paint, and drive-train, there were not as many road-specific details as I would have hoped, at least for my road – Southern Railway. This article goes into what I did to super-detail my particular model up to prototype.

Comparing prototype photos to the model, there were many spotting features that I felt were significant and needed to be added or redone. These include: the horn, firecracker antenna, maintenance grab irons, cab side vent, nose MU hatch, roof vents, spark arrestors, cab shades, ACI labels, side-skirt removal, swap-out to double-beam headlight, and update the cab interior. The next spotting feature I should have tackled would have been the sand hatches, as Southern retrofitted their own on most of their fleet. Also, the rear door would have needed some adjusting to remove the diaphragm and add some other MU detailing, but those are concessions I'm willing to make on this model, after already having spent significant time detailing it to get it this far. Prototype photos of the Southern units are located here:

http://southern.railfan.net/images/archive/southern/f_units/f_unit.html

The black horns are the set that came with the model. Dave built up a set of Bowser Cal Scale brass horns to better match the prototype horn used on the Southern locomotives.

The factory horn on the model was some sort of Leslie-style horn based on the manifold the bells are connected into. Also, all chimes faced forward, which was not accurate for Southern on this locomotive. The Southern used a Nathan M5 (M5R24 to be exact), which I built using a Bowser Cal Scale brass kit. The horn also appeared to be placed too close to the roof's centerline according to my photos, so I re-drilled the location for the horn. I used styrene rod to plug the original holes and smoothed out the seams with Bondo automotive putty.



The photo on the left shows the new horns in the location that best matched the Southern locomotives. Dave plugged the holes with styrene rod and then applied some automotive Bondo putty before sanding the areas smooth.

The next item I added was a firecracker antenna. I made mine using Styrene rod drilled out for .02" wire. The wire represents the lower shaft of the antenna that connects the antenna to the roof. I airbrushed all of these with Pollyscale engine black. The black did not match the factory paint, but since I knew I was going to weather the roof pretty heavily, I didn't really care.



The maintenance grab irons and cab side vent were in virtually all photos I have across all Southern FP7 units. I started this endeavor by drawing a pencil line contour of the nose where I thought matched the photos. I then drilled holes just large enough for me to add my Precision Scale castings for the regular sized grab irons.

Dave made a light pencil line on the side of the nose for reference when he was drilling the grab iron mounting holes. The pencil line was easy to rub off once the holes were drilled.

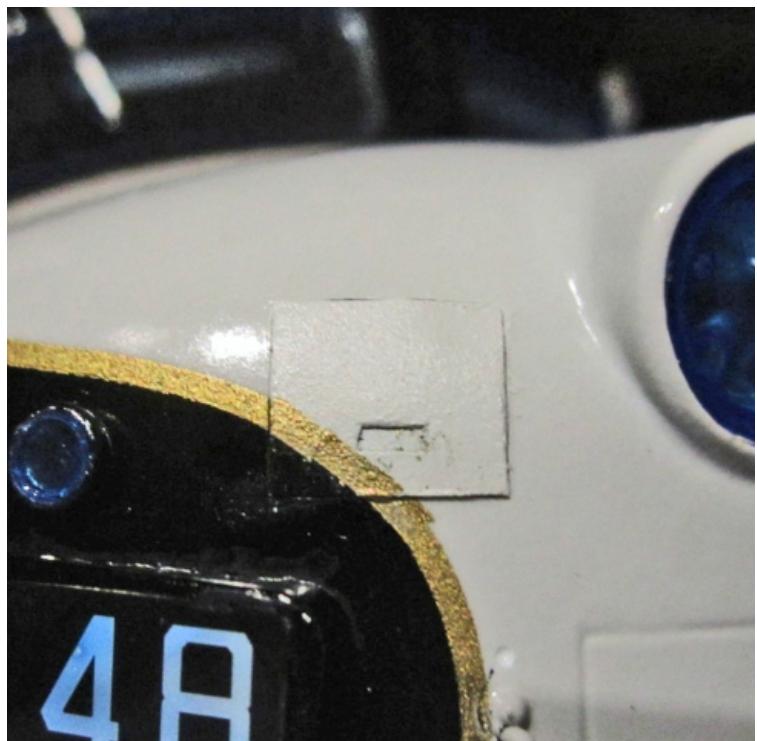


These two photos show the new grab irons and walkway added to the nose of Dave's model. These items were used on the prototype locomotive, and Dave wanted to add them to his model.

The grab iron directly under the cab window was made with .02" wire and Grandt Line rivet castings. One of the two grab irons on the nose itself had to be made with the same method as it was longer than the others. I used a Precision Scale plastic vent casting to match the vent that was to the upper right of the sand hatch. I will note that the Southern had different sand hatches; and at this time I have neglected to replace these on this model. The last item of business to complete the maintenance grabs was the addition of the angle bracket seen below the gold striping. This was made with .06" angle strip cut to length and three rivet castings added. I hand-painted each of these grab irons with either black or my own custom-mixed white that matched the factory paint.

Photos showed there was an MU hatch on the front nose for the Southern FP-7 units. One way I could have modeled this was using Microscale decals. (I found out about this after I did it the way I did.) The way I did it was to cut out what I thought was the right size rectangular hatch and handle using .005" styrene. I then glued it onto the model where photos showed me it should have been. I was able to mask it off, airbrush on my custom mix of white, and then add Microscale gold stripe decals that matched the factory gold striping perfectly.

Roof photos showed some random roof vents that were located right behind the cab. I'm not exactly sure what they're for, but they were easy enough to model. I used some .02" wire to model those. Drilling into the roof was not as easy in this location because that part of the roof is actually a brass piece which I assume is used in the 3 rail models to house the switches for the electronics. There is a spot for screwing in switches built into the casting under the roof in this location.



This photo shows how Dave was able to install a cover for the MU receptacles and still maintain the factory paint job.

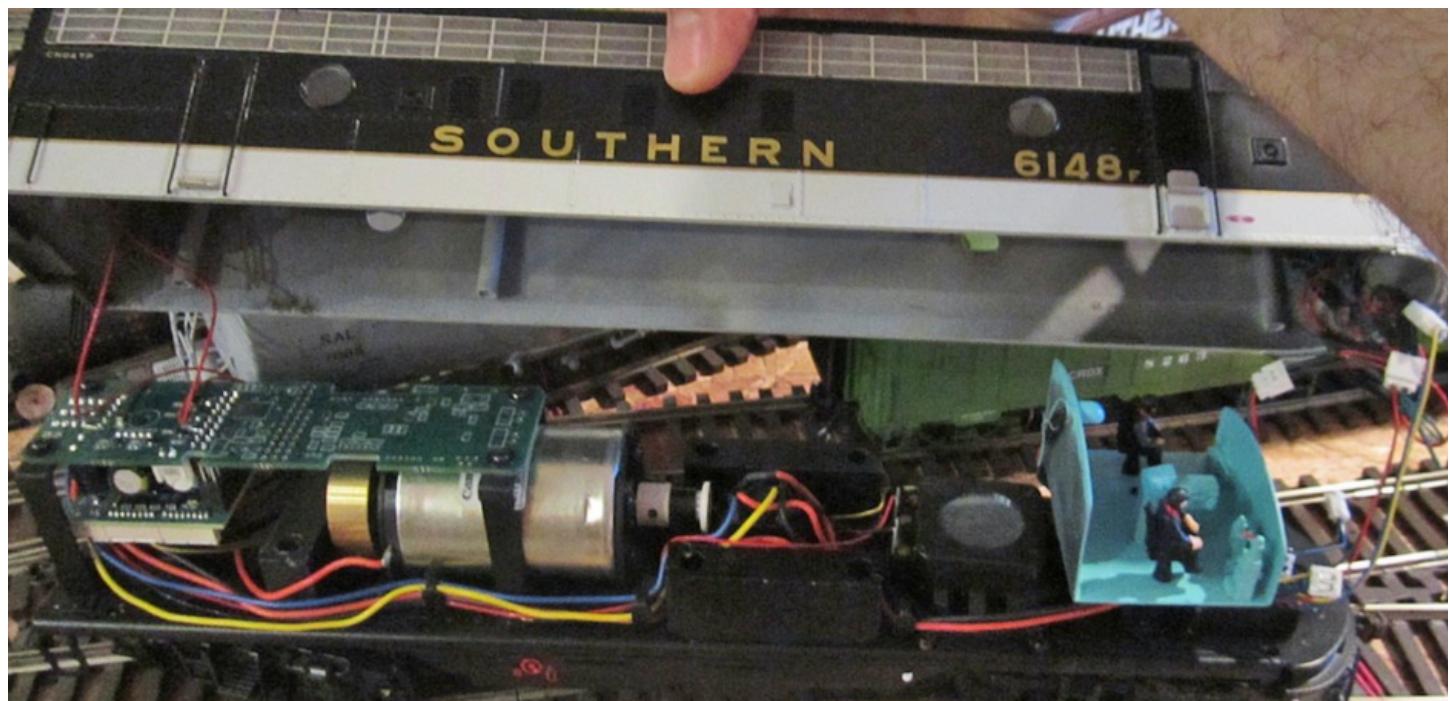
The next detail to add was the cab shades. I have since made more accurate brass photo-etched Southern-style cab shades for F units, Switchers, GP units, SD units, and U-boats, but for this model I used .01" styrene strip and cut it to the correct lengths and shapes. The shades do have ends to them that are triangle-shaped and are cut out separately and glued on. I just glued the completed shades above the cab windows, which makes them very fragile. The brass-etched cab shades I make now allow me to solder brass wire to the underside and use the wire to hold the shades to the model for a more durable cab shade and have the triangular ends built in.

The last, and perhaps simplest detail to add, was the ACI labels using Microscale decals. ACI labels were used between the years of 1967 and 1978 to identify cars and their location on the railroad. Dirt and fading led to their ineffectiveness and demise. Using photos, I placed them onto the shell where they should be. Since the unit was already relatively glossy, I did not glosscote the body for this particular decal application, and it's hard to tell it was added.

The next few modifications required a bit more than work than the "simple" cosmetic steps above. These mods include making the headlight a double-beam headlight, removing the side skirts to update the fuel tank area, and rebuilding the cab interior entirely to make it more accurate. The headlight and the cab interior required me to get inside. The following photo shows what it looks like inside. It is very nicely laid out except for the rat's nest of wiring up front. There is a bit of work to get the shell back on the model in the end, so patience is required when taking this model apart.



Dave added cab shades made from styrene to this model. He said they are easy to make, but are fragile. On later models he made them out of brass for more durability.



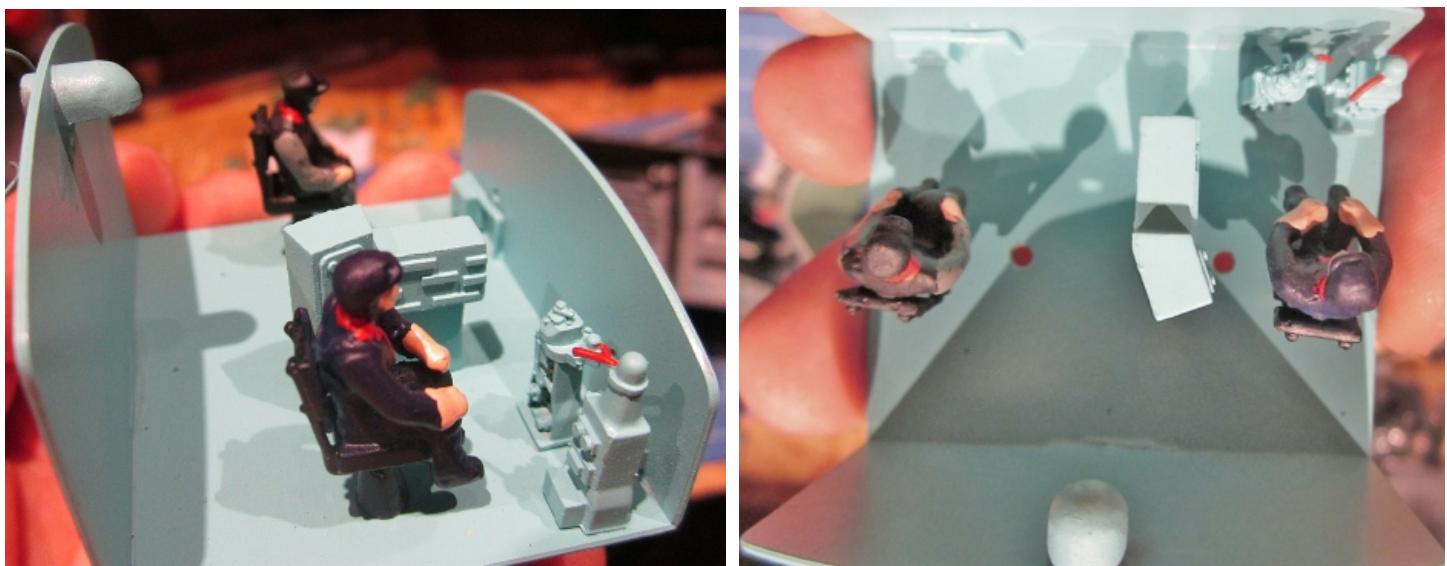
The inside of the Sunset FP-7 as it comes from the factory. Dave modified the cab on his model.



The headlight on these Southern units were double-beam instead of single-beam that the model came with. I will note that Sunset's choice of warm white LEDs are the closest I've seen to match incandescent lighting. I pulled out the LED and then used pliers to remove the glued-in single-LED diffuser. I used the diffuser to trace a circle on a piece of 0.1" styrene, where I drilled out two holes for two 3mm LEDs. After adding a 1k ohm resistor to each LED, I wired them in parallel, as directed by QSI support. While labeled warm white on eBay, I've found that some warm white LEDs are just not incandescent enough. I also painted my LEDs with a thin layer of Tamiya XF-6 translucent orange to make these LEDs appear more incandescent. Be careful not to put on too much, or they will look orange. The LEDs fit snug into the holes I drilled. I reused the existing wire harness and used heat shrink tube to cover the joints. I did paint the assembly and shell's light housing silver per prototype. When the LED assembly was done, I fitted it and glued it into the hole in the shell for the headlight.

Dave modified the headlight to look like the twin sealed beam units used by the Southern.

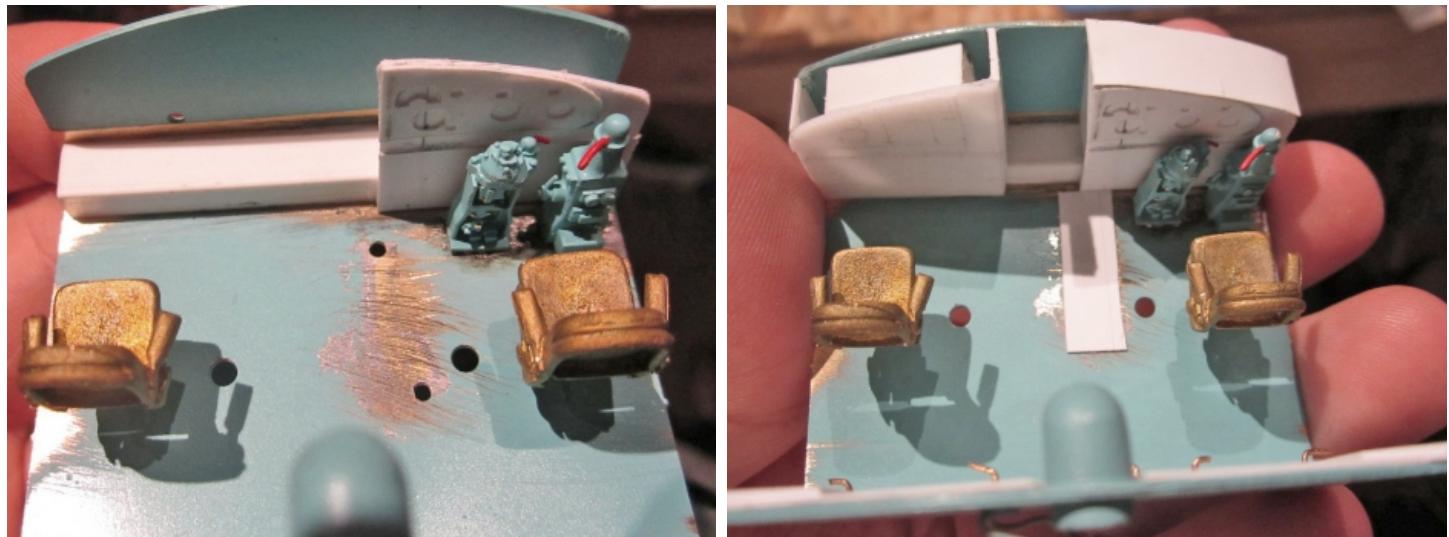
Has anyone noticed the interiors in Sunset's newer releases? Sunset took interest in the work I am outlining here when I mentioned online that I did so. I have seen the 3D CAD drawings of the interiors that were to be in the FT units ,and Sunset really did improve their cab interiors greatly since the FP7 release by moving away from generic control stands (and lack of controls) and putting in more accurate-looking control stands. Below are two images of the cab interior of the FP 7 when I started working on my model.



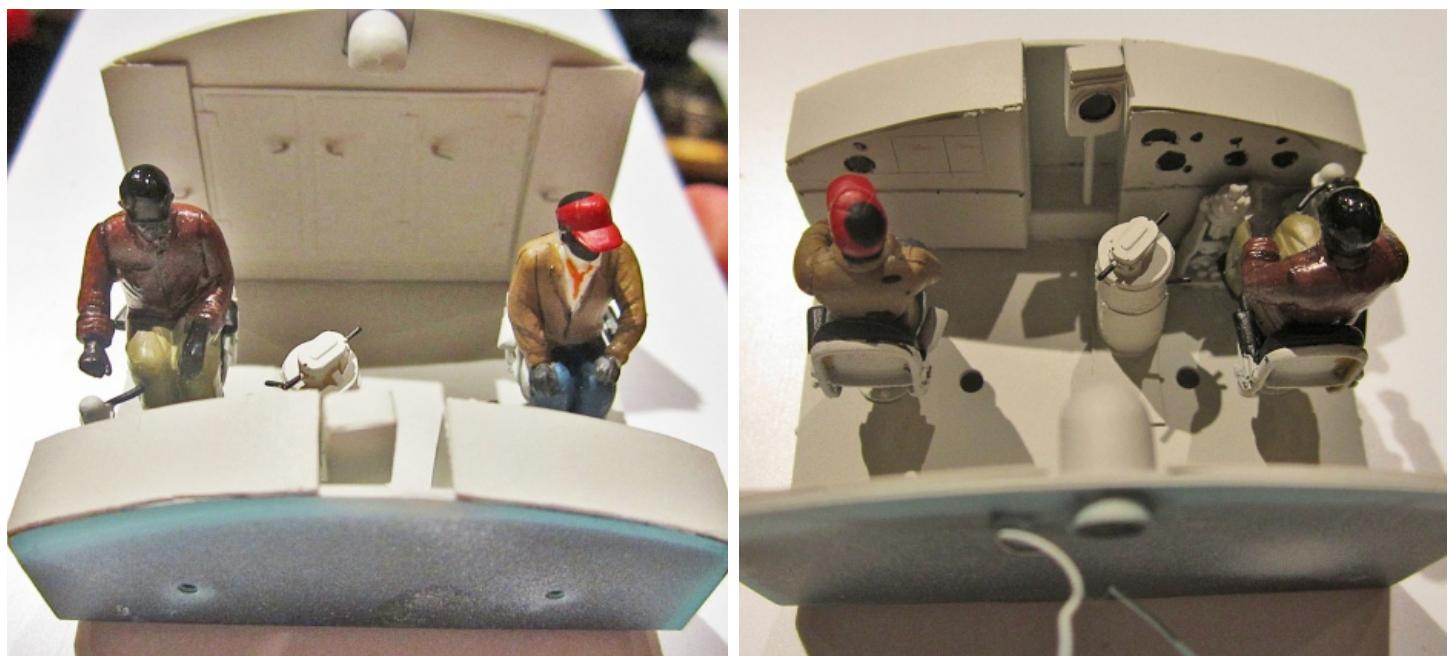
These two photos show the cab interior as it came from the factory. Dave wanted to change the interior to better match the interior of the Southern FP 7's as they were delivered.

The first thing I did was to remove the interior from the unit by unscrewing it and removing the cab light LED from the back wall. I then stripped the interior of existing castings. The chairs unscrewed from the bottom, and I was able to rip out the brake stand and control stands with pliers.

Then I filed down any remaining solder on the cab interior base. Using the existing chair holes, I soldered on two new chairs made by Precision Scale because the figures are cast into the original chairs and I did not care for the existing figures. I used images of the real units to craft the front wall/controls of the cab. The controls themselves were either carved with an X-Acto knife or drilled out of .02" styrene sheet that was then laminated onto a .04" styrene sheet. I matched the contour of the existing front wall. I made a mold and cast these, as I use them for some other F unit projects of mine. To ensure the controls were closer to the engineer and brakeman, I used 1/4" x 3/16" styrene rectangular tube as a spacer so the controls will be closer to the chairs, but leave enough space for the brake stand. Looking at the images of the interior, you will see all of these changes. I reused the brake stand and another casting from the original FP7 interior.



In these photos, you can see how Dave created the dash and bulkhead locations to better match the prototype locomotives. After Dave made the engineer's dash, he made a mold and now casts them for other models.



These two photos show the finished cab on Dave's FP 7.

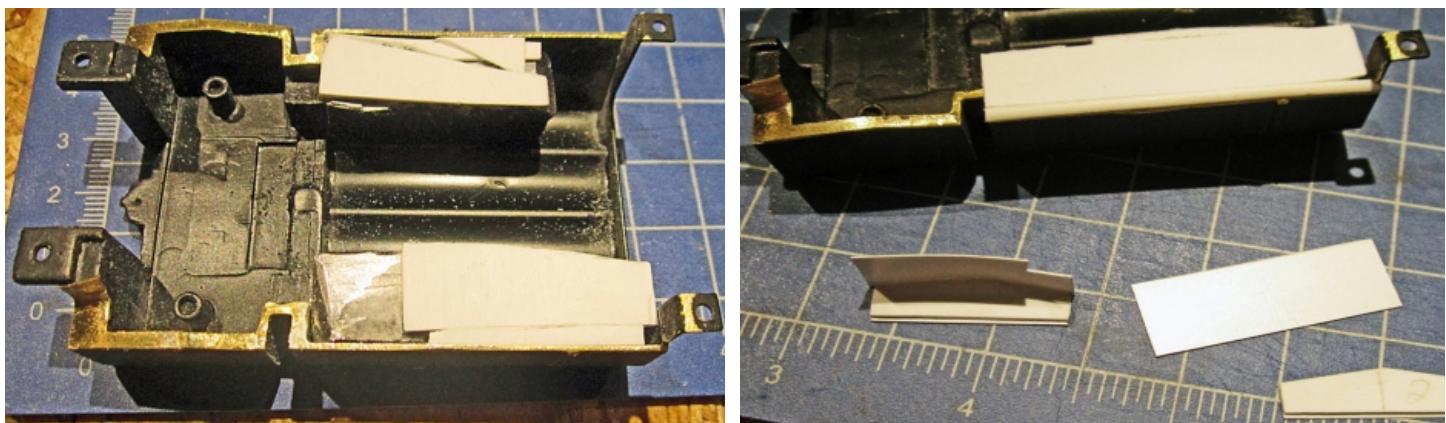
The photos show the completed interior. You can see that I painted the interior the prototype gray and painted the faces of the controls and the seat/armrest cushions black. The figures are MTH's cab engineer figures which, in my humble opinion, are some of the better ones available and fit nicely into the seats. The throttle stand was originally a brass casting of unknown origin (possibly Kemtron). I modified it with scribed styrene paneling to match photos, and added .02" wire for the throttle levers. I also molded and cast this for other projects. The box in between the two control panels on the front wall is a Barco speedometer. It is a Precision Scale casting mounted on .06" brass rod. On the back wall of the cab are 2 doors and 3 panels. The doors were made with styrene, and the panels were a brass casting from P&D, but could easily be done in styrene as well. The handles are all .02" copper wire.

With all of Sunset's recent cab interior improvements, this work isn't needed anymore, but if you have one of the older units, or one from another manufacturer, these improvements may help you.



Here is a photo looking into a lit cab. It's rather hard to photograph cabs, but Dave said when looking at it in person, all of the detail can be seen, making the hours of work involved well worth the effort. In addition, Dave installed some Detail Associate's sun visors into the roof of the shell.

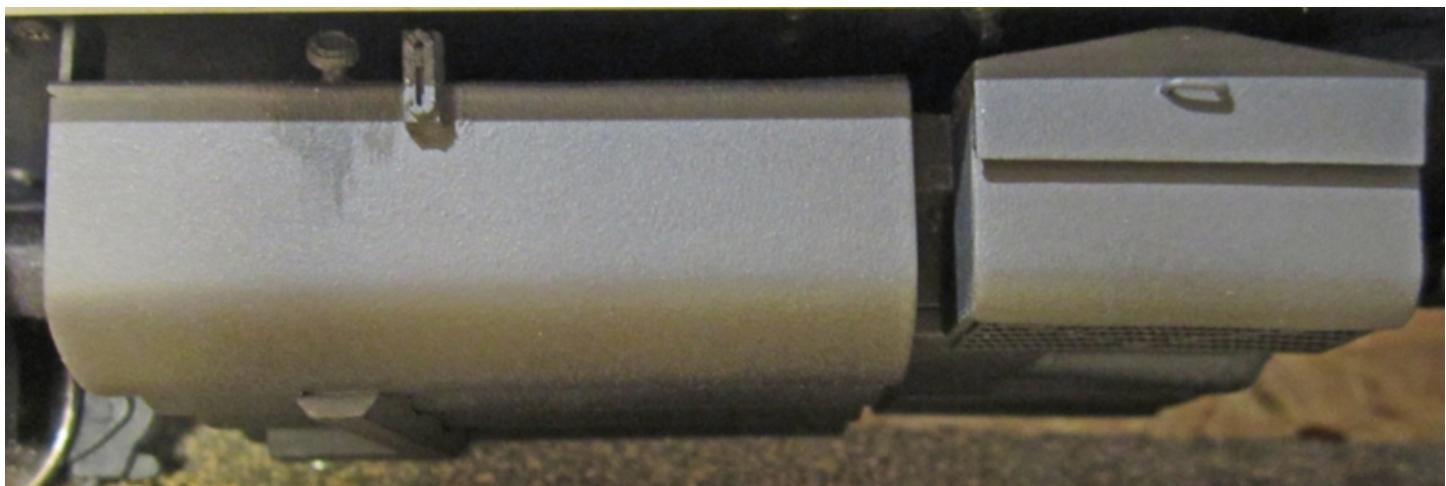
In the 1950s, the Southern removed the skirting on their E and F units. Official drawings for this were around 1956, but photographic evidence shows that this occurred even earlier. Documentation has yet to say exactly why, but it is believed they were removed to make it easier to access the top of the fuel tanks and do fire prevention maintenance. The Sunset model is made as they came from the factory with the skirting. Luckily, the side skirts were brass castings held on by 2 screws each. I removed the skirts, the fuel tank, and both lead weights attached to the inside of the fuel tank. The fuel tank casting had metal all the way up to the chassis. Using photos, there is actually a gap between the fuel tank and the chassis. I was able to scale out about how large to make it, making sure I left enough space to model the top corners of the fuel tank and battery box with styrene.



These two photos show how Dave modified the fuel tank casting on the model. He cut the top off and made the weights shorter. Then he created the top of the tank with styrene and used a styrene quarter round for the rounded top edge of the tank. The photo on the right shows how he created the new battery box.

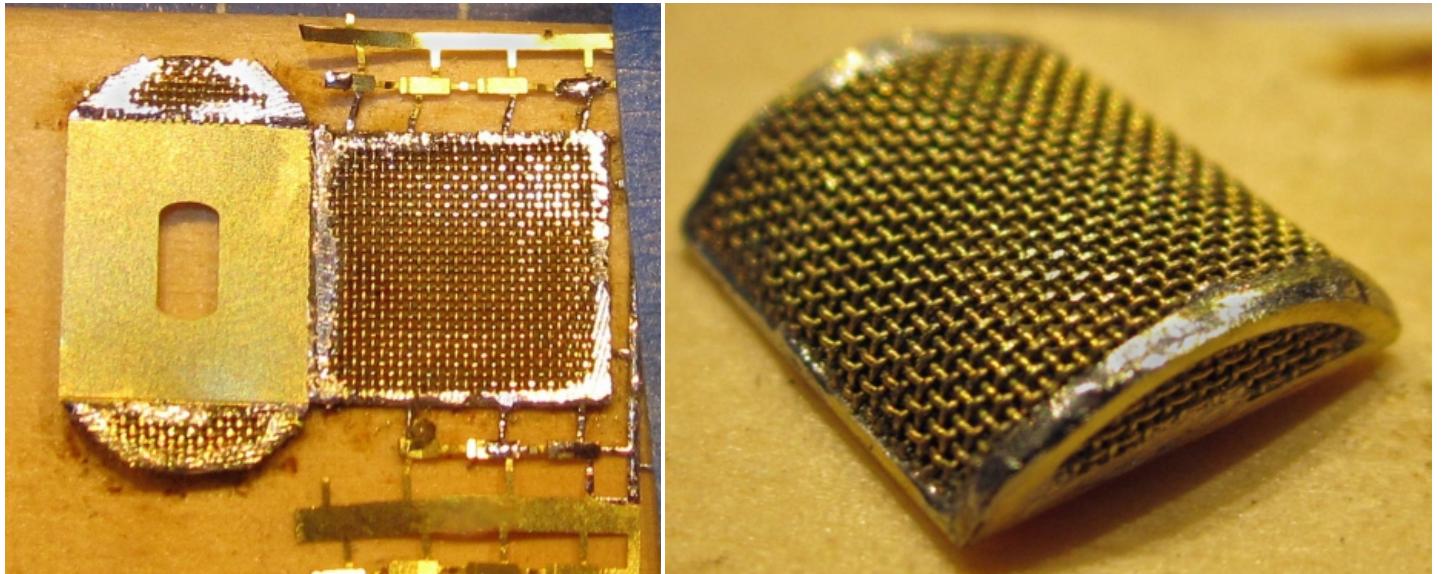
I used a Dremel and cut into the fuel tank and filed everything smooth. I then placed the lead weights back on and used the new sides of the fuel tanks to trace where I needed to cut down the lead weight to allow for the rebuilding of the fuel tank. I ended up cutting a little more than I needed, and had to fill in the height difference between the weights and the fuel tank sides. I rebuilt the fuel tank by gluing the .08" styrene quarter round top and styrene sheet to the casting and lead weight. I added the fuel filler and sight glass to the edges of the fuel tank per photo reference. At the time of this article, I do need to go back and add the fuel cutoff switch, which I forgot to add.

I then reskinned the battery boxes by building a shell that would fit on top of the existing fuel tank. The side with the angular top is made from .02" styrene laminated with .01" styrene that extends over the .02" piece to replicate the overhand on the prototype. The top was made .02" styrene that was bent over the angle and glued. This skin was glued on top of the battery box area. A handle was later added with .015" x .024" brass flat bar. This was all painted engine black, and because the body was kept clean compared to the underframe, I did the weathering before reattaching it to the chassis. I'll have more on the weathering later.



This photo shows the finished fuel tank and battery box on Dave's FP-7. After the styrene modifications were done, Dave added details like the fuel sight glass and handle for the battery box cover. Once it is painted, you can not tell that it is made of bits and pieces, as well as, different materials. A modification like this gives the model a distinct connection to the prototype.

The spark arrestors on Southern Railway's diesels are distinctive. I decided to make them as a brass etching, so I could have real mesh screens. I drew the digital artwork from blue prints and had them etched from .004" thick brass by PEI. In hindsight, this thickness, though prototypical, was too thin and difficult to work with. I soldered brass screens to them, folded them, and soldered them closed. They took several hours each to build, but they got easier with time. The final result of being see-through was worth the effort.



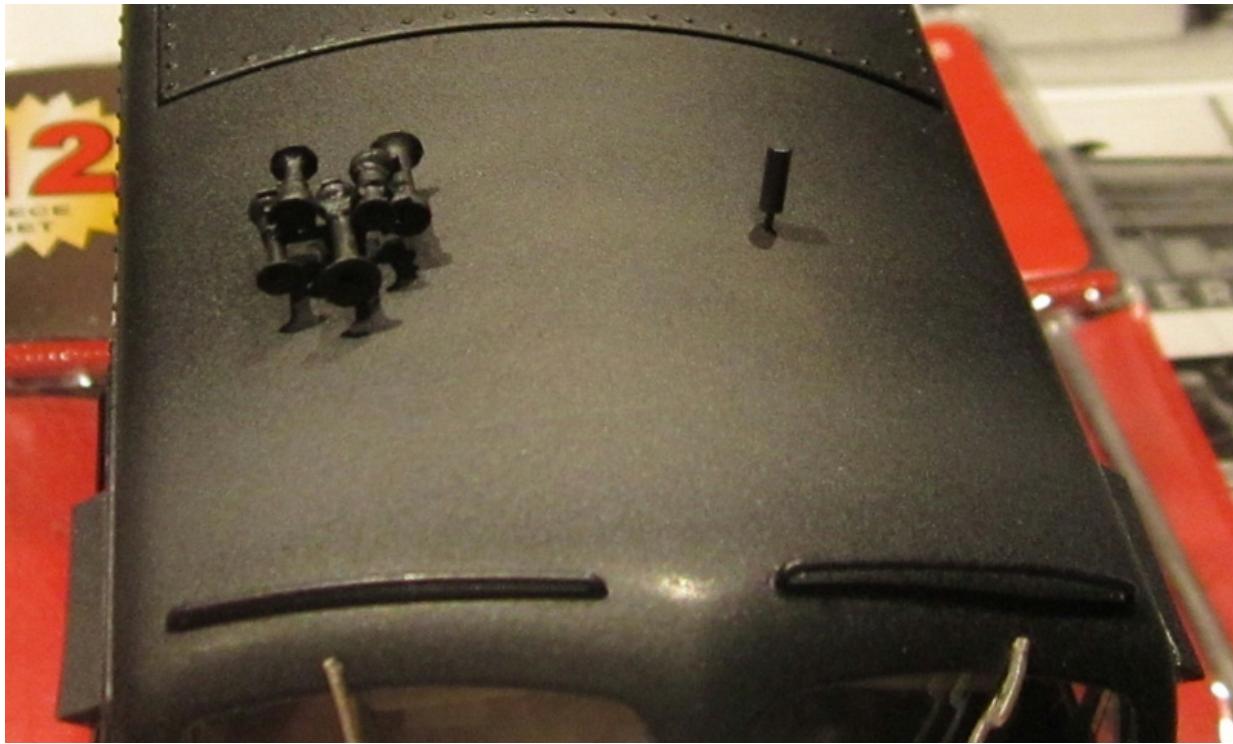
The photo on the left shows the etching Dave made with the brass screen soldered to it. On the right is the finished spark arrester ready to install on the model.



The finished roof on Dave's model. The spark arrestors are another detail that gives the model a recognizable link to the prototype.

I can't discuss modifications without discussing paint and weathering. I first began the process by covering all of the windows that I couldn't take off, with Microscale Micro Mask masking paint. It must be put on in 3 or 4 layers (letting dry between each) to be effective and easy to take off. Unfortunately, it is not as good as Walther's no-longer-made Magic Masker which was like rubber cement. As I painted or decaled various pieces mentioned above, I waited until the end to dullcote everything, as I wanted one even coat over the entire model and needed the masking in place.

After the dullcote, I was able to then airbrush on light dirt/grime onto the trucks, and pilot. The fuel tank was done before putting it back onto the chassis. These are combinations of grimy black, tarnished black, and roof brown. There are subtle highlights and flecks of dirt above the trucks and on the nose per photos I saw. I did not use any pan pastel on this particular model, but I'm finding it to be a good tool to highlight certain areas of trucks, underframes, and pilots. I did put some fuel spillage using oily black around the fuel filler location. Also, I did paint the inside of each wheel face roof brown.



The finished roof of Dave's model after final weathering.

Southern diesels roofs faded severely under the southern sun. I replicated this with various shades of grimy black, tarnished black, and even some lighter blends of various light grays. I went very lightly and would spray across the width of the roof to more accurately represent fading. There are very few and very subtle dirt streaks that would originate from the roof's centerline. I did not replicate any rust on this particular model. All paint colors named here are Polly Scale Acrylic (now discontinued except for 16 basic colors carried over into the Model Master line).

Sunset has done a great job making several prototypes available to the masses at a more affordable price and continues to import interesting and desired prototypes, as shown with their most recent announced diesel project – the SD7/SD9. While there were some initial hiccups with the DCC configuration and lighting with their FP7, I believe Sunset learned very quickly and newer models no longer have those issues. I highly suggest modelers to look at Sunset's plastic diesel offerings as great bases to take their modeling further, or run them as is if they already satisfy your tastes. The ability to even have that choice is what makes this era of O Scale great for everyone. For more on various other projects I've done, see my blog:
<http://davejfr0.blogspot.com/>

Parts List

- .02" Wire - Tichy Train Group
- .0625" Brass Rod - Detail Associates #2513
- .015" x .024" brass flat bar - Detail Associates #2528
- Styrene Rod - Evergreen Scale Models #217
- .08" Quarter Round - Evergreen Scale Models #249
- .06" Styrene Angle - Evergreen Scale Models #291
- Various Sheet Styrene - Evergreen Scale Models
- 1/4" x 3/16" Styrene Tube - Plastruct 90631

- Cab Chairs - PSC PSD-5664
- Speedometer - PSC PSD-5668
- Cab Vent - PSC PSD-56153
- Fuel Fill and Sight Glass - OSA #877
- Grab Irons - PSC PSD-5623
- .032" Round Rivets - Grandt Line #153
- Nathan M5 Horn – Bowser Cal Scale 190-3040
- Southern Spark Arrestor - DFModels
- Gold Stripe Decal - Microscale 48-442
- ACI Plate Decal - Microscale 48-650
- LEDs; 3mm Warm White - (eBay)
- 1k ohm Resistors - (eBay)
- Translucent Orange Paint - Tamiya XF-6
- Other Paints - Polly Scale Acrylics



Dave's finished Southern Railway FP 7. The added details really make the model look nice. Dave was able to do all of this without having to repaint the model.



DES PLAINES

HOBBIESTS

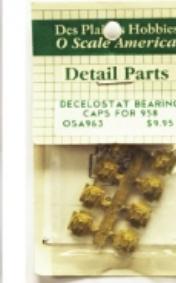


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Programing the DCC CV Values in the Sunset FP-7

By Dave Friedlander

When I detailed my Sunset FP-7, I also did some modification to the DCC control settings to give me better performance. I think it best to provide here, the CV fixes to the factory FP7 models in case there are those who have yet to either update their CVs, or reprogram their firmware with a Q3 file. Although not required, I highly suggest modelers upgrade the firmware from Q2 to Q3 (much like you would upgrade your computer software, but much easier) for an overall better sound package. There is a Q3 file made by QSI Solutions that is floating around online that will automatically have these CVs programmed in on top of the new sound package. Sunset, or your local QSI dealer or club member, can let you borrow a specialized programmer to program this file into your unit. For the users who just want to program the CVs and leave the firmware alone, these users can change the CVs via their throttle, Decoder Pro, or a QSI Programmer (preferred). This list was originally provided by QSI Solutions (not to be confused with QSIIndustries) and compiled by Ed Rappe on the OGR Forum. Also of note, QSI Solutions was not responsible for the original misconfiguration, but happy to help fix the problem. Below is the list of instructions for those using a throttle to update their CVs. A QSI Programmer and corresponding software would require only a few button clicks to achieve the same result.

CV Fix List: Program these CVs on the mainline to have QSI's verbal programming read back assist you in ensuring you've programmed the right CVs in the right order. Indexed CVs will be displayed whole then broken down into the individual CV49/50 values.

1: Start Voltage CV2= 24

2: RTC Min BEMF CV56.5=6 to set this, program the following CVs in the following order:

CV49=5
CV56=6

PID Parameters

3a: Very Low Speed Proportional Gain CV56.18.0=60 to set this, program the following CVs in the following order:

CV50=0
CV49=18
CV56=60

3b: Very Low Speed Integral Gain CV56.18.1=1 to set this, program the following CVs in the following order:

CV50=1
CV56=1

3c: Very Low Speed Differential Gain CV56.18.2=150 to set this, program the following CVs in the following order:

CV50=2
CV56=150

4a: Low Speed Proportional Gain CV56.19.0=10 to set this, program the following CVs in the following order:

CV50=0
CV49=19
CV56=10

4b: Low Speed Integral Gain CV56.19.1=1 to set this, program the following CVs in the following order:

CV50=1

CV56=1

4c: Low Speed Differential Gain CV56.19.2=35 to set this, program the following CVs in the following order:

CV50=2

CV56=35

5a: Medium Speed Proportional Gain CV56.20.0=7 to set this, program the following CVs in the following order:

CV50=0

CV49=20

CV56=7

5b: Medium Speed Integral Gain CV56.20.1=1 to set this, program the following CVs in the following order:

CV50=1

CV56=1

5c: Medium Speed Differential Gain CV56.20.2=25 to set this, program the following CVs in the following order:

CV50=2

CV56=25

6a: High Speed Proportional Gain CV56.21.0=7 to set this, program the following CVs in the following order:

CV50=0

CV49=21

CV56=7

6b: High Speed Integral Gain CV56.21.1=1 to set this, program the following CVs in the following order:

CV50=1

CV56=1

6c: High Speed Differential Gain CV56.21.2=15 to set this, program the following CVs in the following order:

CV50=2

CV56=15

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Speed Calibration Settings (optional, but recommended)

7: SMPH/BEMF Ratio CV56.7.0-1= 850 to set this, program the following CVs in the following order:

CV50=0

CV49=7

CV56=82

Then:

CV50=1

CV56=3

8: BEMF Offset CV56.8=33 to set this, program the following CVs in the following order::

CV49=8

CV56=33

Practicing Weathering



I sat down at my workbench with my new pallet and some sample panels. I tried a variety of brushes and thinners. I learned from this and found some things that do not work and some things that have some promise. It was time well spent.

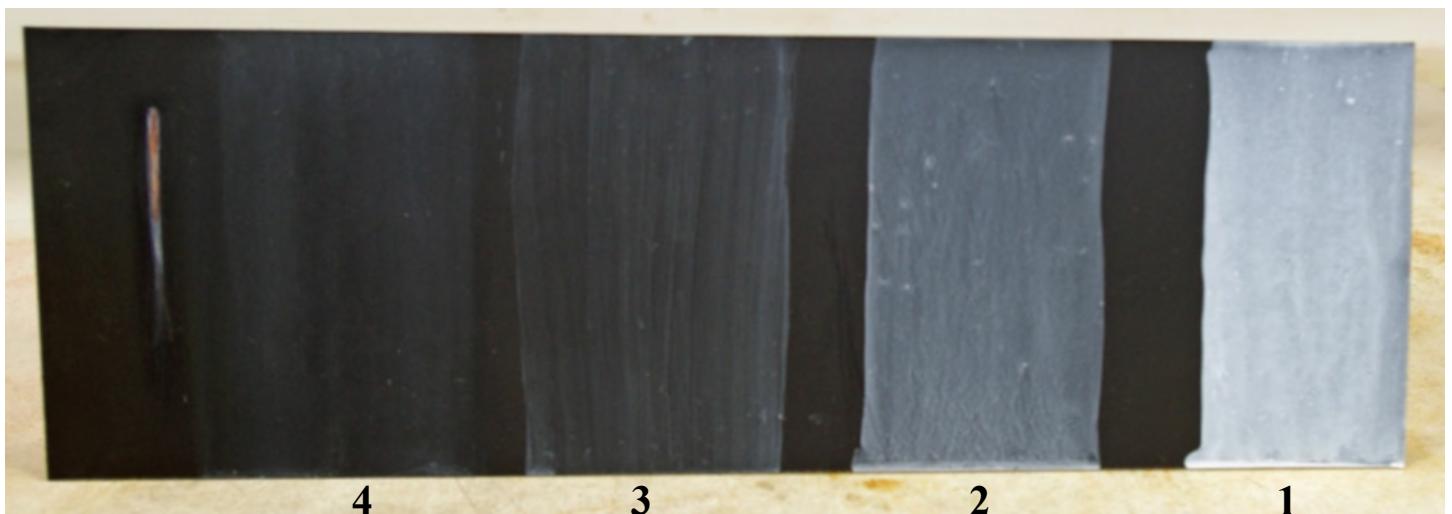
By Glenn Guerra

In the November/December 2014 issue of **THE O SCALE RESOURCE**, we looked at some locomotive paint jobs done by Lee Turner and Jim Booth. Both of them have a lot of experience weathering models, and it shows in their work. What we tend to forget is that even the masters had to learn their craft. Many techniques were tried, and much scrap was made along the way. Even if they showed us what to do and handed us the brush, we would still have trouble getting the results. It takes practice. That's what this article is about.

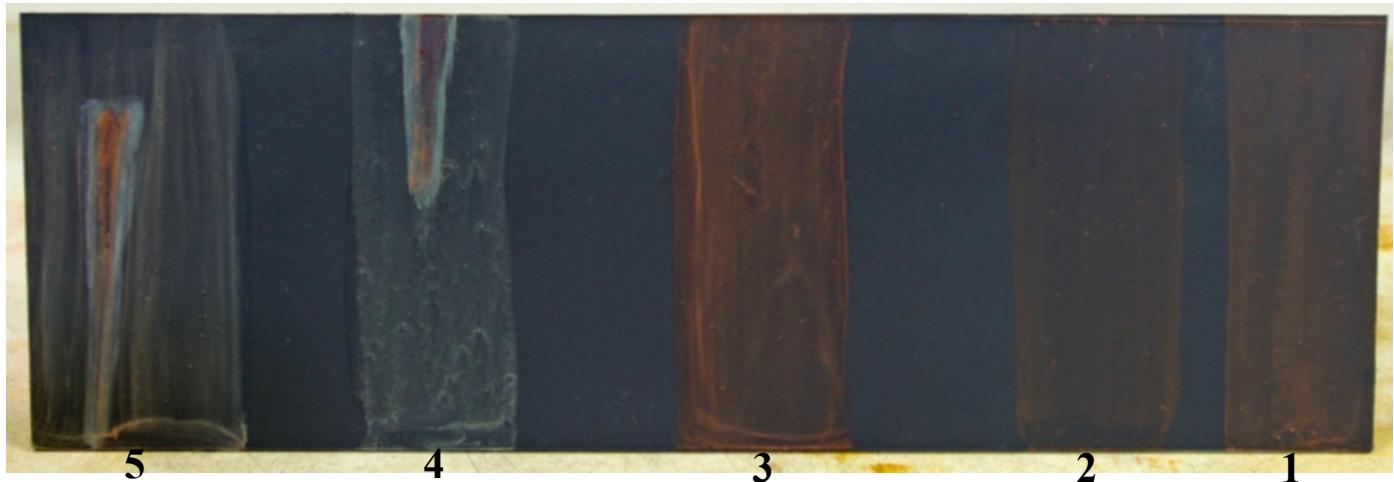
We all need to practice the techniques before we try to paint a model. Many things will influence the results. The paints we use, the brushes we use, the thinners we use, how to thin the paint, and how wet to put the paint on are some of those things. Both Lee and Jim do a lot of work with brushes. For this article, I will stick with the brushes.

In the locomotive article, we mentioned washes and filters. They are very close to the same thing. The difference is that a wash is more opaque than a filter. To make both, your paint is thinned and brushed on. Something you would call a wash will show more of the wash color over the base paint. With a filter, the wash is so thin that the predominant color is still the base color, but is not quite the same as the base color itself. Spills and rust streaks are things you may want to do with a wash. They are pronounced features and you may want them to show. However, if you look close, you will see that many of these features on real objects are not a harsh sharp line. By doing this effect as a wash, we can soften the edges to look more realistic. Washes can be applied as a brush stroke of color or can be streaking of applied paint with thinner paint. In the applied technique, the thin paint is brushed on the area. In the streaking of applied paint technique, a small amount of paint is applied to the model and the area is washed with thinner. This will cause the paint to run and follow the brush stroke. Filters can be applied the same way, but are much thinner. An example of a filter would be to take a gloss black steam locomotive and cover it with very thin white. The result will be a gray colored locomotive.

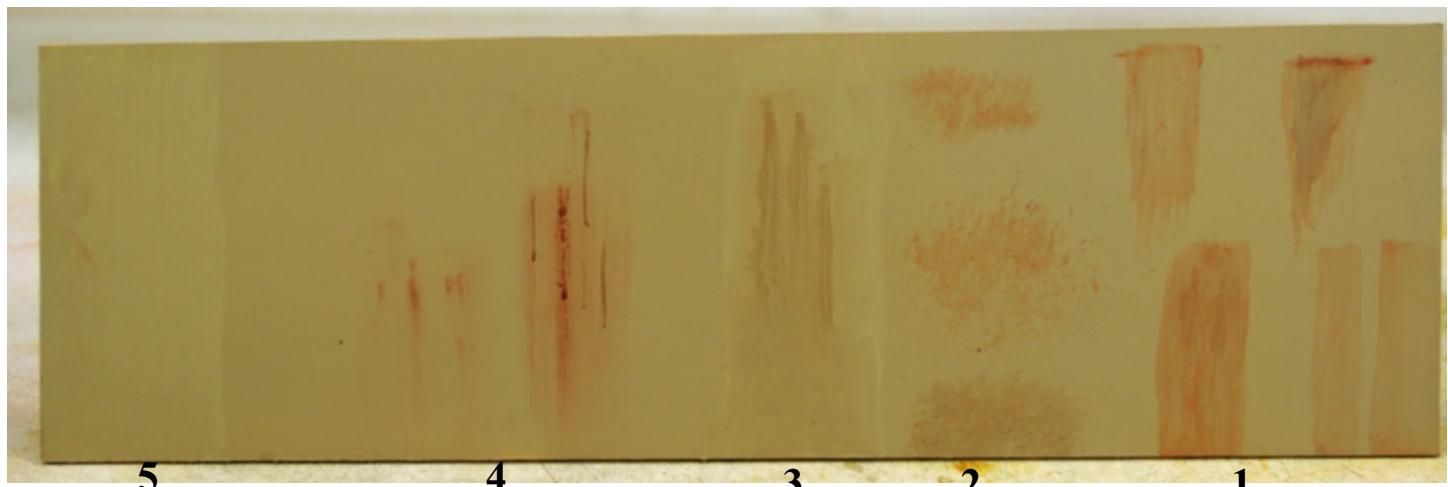
I wanted to try some of this myself, and did not want to try on good models so I made some practice panels. To start, I painted some scraps of styrene with colors found on railroad cars and locomotives. This is much cheaper than practicing on a model, and by using some common railroad colors, I can see what is going to happen to my model. Then, I went to the craft store and bought an artist's mixing pallet. This gave me a place to mix colors and thin the paint as I went. When you are weathering, you will need to mix colors to get the effects you want. The pallet has some small wells that hold the paints and areas where you can mix them. The plastic one I bought was cheap, and it is easy to clean. Next, get all your brushes out. Different brushes will give different results. I painted my panels with Floquil paint because that is what I still have. Other hobby paints will work the same as long as they are dry when you start the weathering. I used acrylic paint and some artists oil paint. The thinners of both of these paints would not effect the base paint. Then, I started trying some different things. I took photos of the panels, and will explain what I was trying on each of those photos.



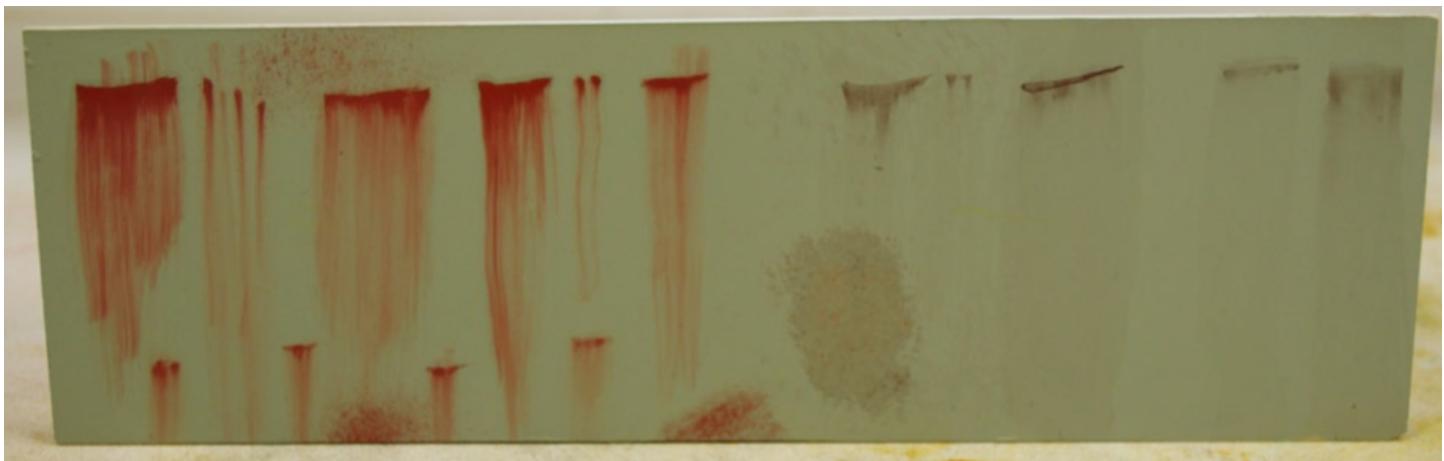
This panel is the gloss black panel. I painted it with Floquil gloss black and I used acrylic paint for the weathering. On the right at #1, you can see where I started with a white wash. I made the one on the right too thick. The next one to the left, #2, is a little thinner, but still too heavy. The third one from the right, #3, is very thin. This is getting better and more what I want. I am not happy with the brush strokes yet. When I put this coat on, the paint was still milky and I could see it as I put it on. The fourth try was #4, and I put that on with a 1" wide foam brush. This paint was so thin that it looked like I was putting water on. When it dried, you can see the difference. This would be a good example of a filter. I also like the foam brush because it did not streak as bad as the natural hair brush. So, when you are doing weathering, start with very thin washes and filters. Wait until they dry to see the effect. I used a hot air gun to dry this quicker, and it worked fine. You can change the base color of your model without repainting it by using the filter technique. The last item on the left is a streak I was trying to make. The colors are a little harsh, and this is an example of putting it on too heavy to start.



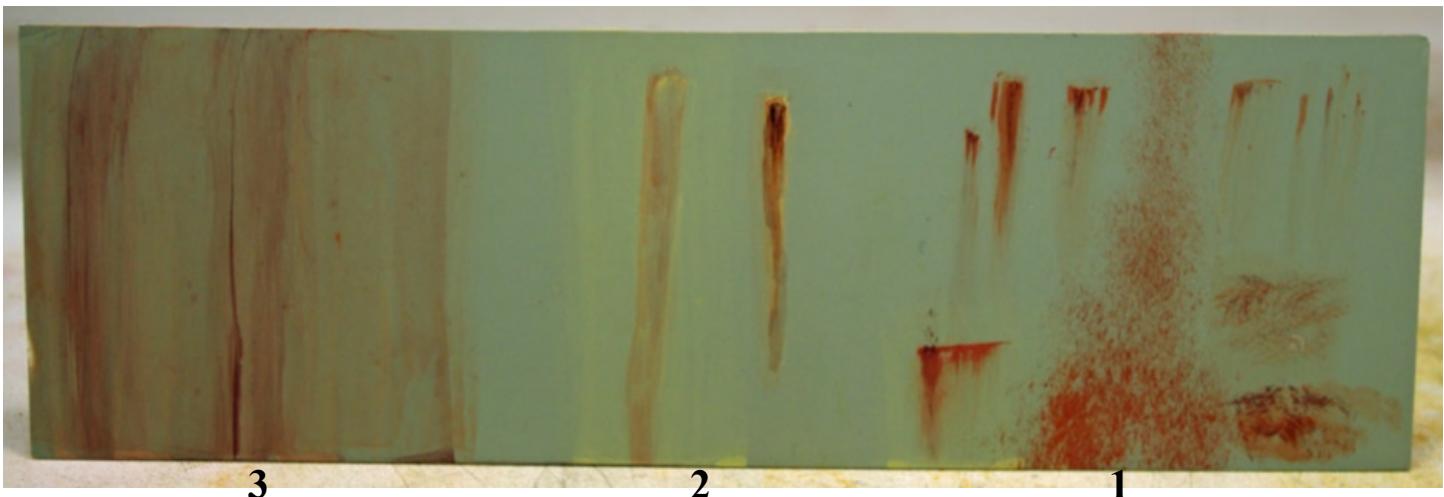
This panel was painted with Floquil grimy black using acrylic paints for the weathering. Samples 1, 2, and 3 are all a rust color applied with a brush. Number 1 is not bad, but is a little harsh. Number 2 looks the best to me. This has some possibilities. Number 3 is too heavy, but the far left side looks interesting – I like the streak. Now to see if I can duplicate this. For number 4, I tried to make a multi colored streak again. I was having a little trouble with the paint drying too fast. I used alcohol for thinner and it dried too fast. I wanted to be able to go over the whole thing and wash it to blend the colors. What I got was not what I wanted – the white was too dry and stayed, while the other colors washed away. On number 5, I tried the same thing, but let the paints dry. Then, I tried to wash them but they were too dry. I used water and alcohol for thinner on this, and that slowed the drying time, but still did not give me the effect I wanted. Also, I think I put the paint on too heavy. Going very light seems to work better. Better color selection would have also made the streaks look better. I do not use a lot of acrylic paint ,and need to learn more about thinners and how to slow the drying time. This is all part of practicing.



This panel was painted with Floquil foundation. At area #1, I was trying to make streaks again with acrylic paint. In the upper right, I came back and tried to add some different color to the streak. I think I like the oil paint better for streaking. It stays wetter longer and will streak better for me. Since I am new to acrylic paint, I need to learn more about how to control the drying time. At area #2, I tried the stippling again. The acrylic paint dried fast, and the only way I could get it off the brush was to have it a little wet. That did not give me the effect I wanted. I was looking for rust spots. In area #3, I tried streaking again and washed it with some sand yellow. These streaks would make some good spill effects. In area #4, I made some light color streaks and then came back with a darker color and streaked them again. This has some possibilities. The two colors were closer than some of the other two color streaks I tried, and look better. Now to learn how to control this, and get the dark colors where I want them. This was done with acrylic paint and water for thinner. I used a natural hair brush. At area #5, I tried a filter with the sand yellow color.



This panel was painted with Floquil and started as gray. On the right, I was trying to make rust streaks with the acrylic paint. The paint was drying too fast, and I was having trouble streaking it. On the left, I tried artists oil color. This stayed wet longer and I streaked it with mineral spirits. It doesn't take very much paint at all for this. To make the streak, I dabbed some paint on with a toothpick and then washed it with thinner to streak it. Most all of them are too heavy, but the streaking looks better. At the top and bottom, I tried stippling with a dry brush. I used a cheap hog bristle brush, put some paint on it, and wiped it dry. Again, it's too heavy. I needed to go very light and let it sit. It's easy to overdo things.



After I did the panel at the top, I thought about what I was doing, and made this panel the next day. At area #1, I tried the stippling again. This time I tried with a soft nylon brush. Sometimes water based paints are hard on natural hair brushes and I wanted to see if this made a difference. The area to the right of the #1 was done with the nylon brush. It still came out a little heavy. The brush was not stiff enough and was too uniform. The areas just above the #1 were done with a cheap hog bristle brush. They are very poorly trimmed and that worked well. I dipped the brush in a little paint and then dried it on a paper towel before stippling the panel. There is a fine line between too wet and too dry, and it will take more practice. Next, I wanted to practice the rust streaking some more. On the panel above, I used a small brush to apply the paint and then streak it. There was too much paint, and it ended up being a wash when I streaked it. On this panel, I used a toothpick and dabbed some paint on the panel. Then I streaked it with the nylon brush. The brush worked well if it was a little damp. If it was too damp, it washed the paint instead of streaking it. On the lower streak, just to the left of the #1, I came back over it with a darker color and streaked it again. The streaks are getting better. They are still a little heavy for my taste; and I think I need to work on color selection a little more. At area #2, I was trying some different color in the streak. On the right, I applied a sand yellow wash and dried it with a hot air gun. I then added the light rust color and dried it. Last, I added the dark rust color. On the sample to the left, I washed it with a thin sand yellow over what I had done to try and soften it up a little. At area #3, I was trying multiple washes over each other. The choice of colors was all I had, but I can see where this could work.



After messing around with the streaking, I thought I would see if I could streak a letter. I used a rub on letter here with a few dabs of white acrylic on it. Then, I streaked it with water and alcohol. I found out that the brush needs to be completely clean each time you streak. Notice the white streaks to the right of the letter. This is paint picked up from the first streak pass with the brush, and when I made the second pass, it left these streaks. I think that I may have also put too much paint on the letter. A bit less would have made the streak more subtle. This may look good on the side of a building that has some lettering.



This panel was painted with Floquil boxcar red. The base color is on the right at area #1. At area #2, I used a thin sand yellow acrylic paint applied with a cloth. It is too splotchy, and I think a foam brush would look better. At area #3, I used a white acrylic applied with a natural hair brush. I was trying to get the effect of faded paint. I think if I used the foam brush, and made the paint a little thinner, it would have looked better. At area #4, I did the same thing with a sand yellow color. Some freight cars fade towards a yellow and some towards a white. Also, where the car runs makes a difference. A car that runs in the west hauling grain may fade more to the yellow. I think the foam brush would be better here and I need to start thinner, building it up as I go and not try to get it all on at once. I think this is a good example though that ready to run cars can have the color changed slightly with a filter effect. It could add some variety and take the new shine off your cars.

So, don't be discouraged when you look at the work of masters. They all had to learn also. Make some practice panels like this, and work on your techniques like I am doing here. Try different paints, thinners, and brushes. Change one thing at a time and see what happens. That way, you can relate the different look to the exact change you made. That can also tip you off to what you may want to change if it's not working the way you want.

O SCALE SHOWS & MEETS

The O Scale Resource Magazine will now be providing a free listing of upcoming events. This small, text only listing will include the Event, Date, Location, Type of Event, and Contact Information. [Click here](#) to go to the sign up form. This form will take your information, and we will publish it in our next issue. If it is an annual event, you will need to submit your information every year.

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Strasburg Train Show: 2 -rail swap meet
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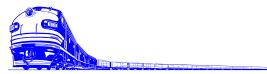
Southwest O Scale Meet
October 16-17 Fort Worth, TX

No promises but we are working hard to arrange a tour of the GE locomotive plant. Friday: Possible GE tour, dinner, north-side Ft. Worth layout visits. Saturday: sales and trading tables, clinics, and south-side layout visits.

Show web site: www.oscalesw.com, email swoyscalemeet@gmail.com, or call Mike Ross 817.346.3416

Cleveland 2 Rail O Scale Meet
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Chicago March Meet (Note new later dates this year only)
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