



The DERAIL

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January 2019

Volume 50, Issue 1

President's Message

By Robert Barnett

From the President

I hope you are having a joyous Holiday Season. I know that all who attended our annual Christmas Party hosted by the Freitags had a great time, although you may or may not have wound up with the gift you wanted the most after all the “steals”. I offer my heartfelt thanks to Virginia and Gil for once again hosting the annual San Jacinto Model Railroad Club Christmas Party (and gift “Exchange”).

So, here we are at the start of another brand new year, and you have a long “things-to-do” list for model railroading. After attending the funeral this week for our local well-known electronics guru Jim Thompson, I am reminded of some New Year’s advice I gave several years ago in one of these columns.

- If you have been putting off starting a layout – start one.
- If you have delayed expanding your layout – start that addition.
- Finish the paperwork for that NMRA certificate (or several of them).
- Dust off the layout, store or throw out all the stuff you have stacked up on top, and host an operating session.
- Look at that stack of car kits (or structure kits) you have stored up and start one. (And finish it too.)
- Resolve to spend some quality time on your favorite part of the hobby.
- Time is NOT a renewable resource.

I am looking forward to another great year in the San Jac Club. See you at the January Meeting.

Bob Barnett

Upcoming Meeting Date Changes

Due to New Year’s Day falling on the first Tuesday, the January meeting will be on Tuesday, January 8th.

Remembering Jim Thompson

By Bob Sandhaas and Tom Bailey



On December 5, 2018 the Houston Modeler Railroad community lost one of its long-time members, Jim Thompson. He is survived by his loving wife Cindy Thompson of 55 years, his daughter Holly Thompson and her partner Steve Hoffman; grandchildren, Cheyenne LaMarch, Noah LaMarch, and Alivia Hoffman; and his sisters, Phyllis Radzom, Janice Posa, Donna Bock, and Judy Baker.

Jim modeled a fictional West Virginia short line, the Cashaway Valley RR that also interchanged with the N & W and the C & O. The layout's name exemplified his sense of humor. Jim designed his layout in an around the wall configuration to fit a 10 by 20 room adjacent to his garage. The layout featured a small yard, coal mine, a highly detailed waterfront scene that included a scratch built barge, numerous industries, and a branch line featuring a logging operation and a small mine tipple. The entire layout realistically depicted a West Virginia coal hauling short line.

His layout was a masterpiece that equaled or exceeded those written about in the hobby press. Jim possessed the skills of a master craftsman whether it was his highly detailed structures (scratch built or kit bashed), hand laid track, realistically weathered rolling stock and highly detailed locomotives, or his museum quality scenery. The town of Oakdale provided an excellent example of his craftsmanship. Jim built the entire town in his garage and then placed it on the layout.

Jim loved operations and designed his railroad for that purpose. Peter Bryant, who spoke at Jim's memorial service, stated that Jim held over 160 operating sessions. Because of his passion for operations, Jim was instrumental in establishing a Tuesday morning round robin group affectionately known as "the Geezers" that operated regularly for more than ten years. Jim also operated regularly on area layouts and regularly hosted operating sessions for Hooters. Jim rarely experienced any problems during his operating sessions due to his meticulous trackwork and the way he maintained his locomotives and rolling stock.

When it came to electronics, Jim was a virtual genius and go to guy. All sorts of complex electronics could be found on his layout including a working signal system that interfaced with JMRI. In addition, Jim worked extensively with the JMRI Users Group to further refine and improve it. Jim was also the resident expert on JMRI in terms of operations and interfacing JMRI with a railroad. Jim automated his entire staging yard using JMRI, which was no small feat. He even devised a way for one of the Geezers who could no longer attend operating sessions due to health issues to remotely dispatch railroad.

What Jim will be remembered for more than anything is his willingness to share his expertise in all aspects of the hobby, his many talents, and his time in helping fellow model railroaders. If there a person who deserved the title of a master model railroader, then Jim Thompson has surely earned it.

Please check out Art Houston's video tribute to Jim Thompson.

<https://www.youtube.com/watch?v=0FLaB7hWnzA>



Operations on the Mystic Branch — Part One By Gene Mangum

In this series of articles I will discuss operations on the Mystic Branch. The Mystic Branch is loosely based on the actual branch line from San Antonio to Kerrville that was mostly abandoned in the early 1960's. San Antonio is represented by removable staging cassettes. The two intermediate towns on the branch, Val Verde and Mystic, are fictitious. Kerrville is represented by a simple ladder yard... with "non-modeled" rail served customers occupying two tracks. The time frame for the Branch is set in the late 1970's/early 1980's. Cabooses are still being used on the Branch. In Part One I will describe the essential operational elements. Actual operations will be described in later articles.

Basic Operation Assumptions

As described in the April 2018 Derail article describing the Mystic Branch, there are four (4) freight trains, three (3) "yard jobs" and two (2) passenger trains per operating session. As per SP Practice, all freight trains operate as extras. Since there is no fast clock, the two passenger trains also run as extras. Essentially, the railroad operates in a sequential manner.

SATKVT - The first train per session (essentially per day) is named SATKVT (San Antonio, TX – Kerrville TX), which brings the freight cars for Kerrville, Mystic and Val Verde onto the branch using one of the SD's. It is a nine car freight operating from San Antonio Staging to the Kerrville yard main track via Val Verde and Mystic. It does not stop in either Val Verde or Mystic. The nine car maximum train length is controlled by the track length of the Kerrville yard main.

YARD JOB 1 – Yard Job 1 is responsible for sorting the cars for Val Verde and Mystic for the two "turns" and any cars bound for the un-modeled rail served customers in Kerrville. The MP-15AC is used for all yard jobs.

VVT - The VVT (Val Verde Turn) brings all of the cars destined for Val Verde into the passing siding in Val Verde using the SD used for SATKVT. It then delivers all cars to the Val Verde rail served customers and picks up all outbound cars and returns to the main track in Kerrville.

YARD JOB 2 - Yard Job 2 then sorts all outbound loads and empties from the VVT.

PS-SATKVT - Once the Main track in Kerrville is cleared, train PS-SATKVT (Passenger Service – San Antonio, TX – Kerrville, TX) departs San Antonio Staging for Kerrville using the other SD for power with station stops in Val Verde and Mystic. PS-SATKVT is generally a three car train: coach, baggage lounge, and RPO.

MYT - Once PS-SATKVT arrives on the Kerrville Main, the MYT (Mystic Turn) is dispatched for Mystic using the SD from the VVT. In Mystic, MYT takes the passing siding and waits for PS-KVTSAT (Passenger Service – Kerrville, TX – San Antonio, TX), the return passenger train from Kerrville to San Antonio. Once the PS-KVTSAT has passed, the MYT delivers all cars to the Mystic rail served customers and picks up all outbound cars and returns to the main track in Kerrville.

PS KVTSAT - After the run around by the "passenger" SD, PS-KVTSAT then departs for San Antonio with station stops in Mystic and Val Verde.

YARD JOB 3 – Yard Job 3 then sorts all cars from the MYT and creates the train for the return to San Antonio on the Kerrville Main.

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KVTSAT - Train KVTSAT (Kerryville, TX - San Antonio, TX) then departs for San Antonio via Mystic and Val Verde with all cars destined for San Antonio and points beyond. Again, KVTSAT does not stop in Mystic or Val Verde. Occasionally a work extra is dispatched to complicate things.

There is a “Train Job Description” laminated card for each train and yard job. Examples are shown in Figure 1.

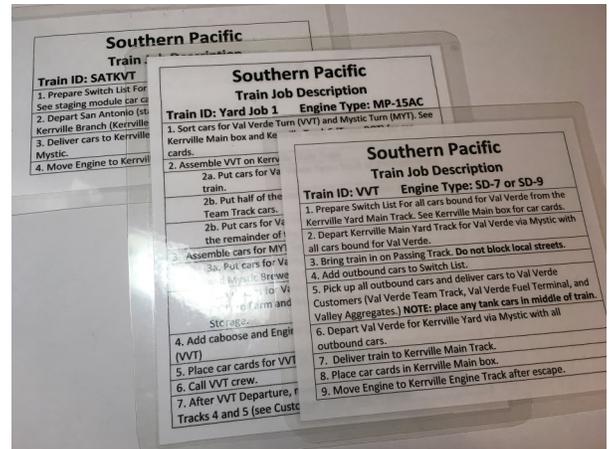


Figure 1 — Train Job Descriptions

Car Card System

Also as described in the April 2018 Derail article describing the Mystic Branch, the Branch operates using the “Car Card” system. Car Cards are generated for all rolling stock and four-destination waybills for all freight cars. This system works well for this relatively small railroad. Depending on the car type and reporting marks, appropriate rail served customers for the car’s origins/destinations off the railroad are selected. I use the Internet to search for real rail served customers that send/receive specific load types for the region where the car is originated. For example, if the car has reporting marks for an eastern railroad, then I chose an appropriate city within that region to select an industry that would send/receive the specific load type. The on-Branch rail served customers were selected using a formula-based process. Each customer on the Branch is listed in a Worksheet within an Excel Work Book entitled On-Line Industries with the combination of load types that it can send/receive. The frequency of each movement is estimated and then converted to the number of cars per day a particular customer processes. According to this relatively simple formula, the estimated number of cars that are actually on the modeled portion of the Branch at any one time can be ascertained. See Figure 2.

SP Mystic Branch On-Line Industry List							
Town	Industry	Inbound/Outbound	Car Type	Lading	Frequency	Cars/Day	
ValVerde	Valley Aggregates	Inbound	HM Aggregate Hopper	Empty	6 per day	6	
		Inbound	XM Boxcar	Maintenance Items	1 per quarter	0.01	
	Valverde Station Team Track	Inbound	HM Aggregate Hopper	Crushed Limestone	6 per day	6	
		Outbound	* Various Types	Various Items	2-3 per week	0.35	
Valverde Fuel Terminal	Inbound	* Oil & Chemical Tank Cars	Refined Gasoline	2-3 per week	0.35		
		* Oil & Chemical Tank Cars	Propane	2 per month	0.07		
	Outbound	* Oil & Chemical Tank Cars	Crude Oil	1 per week	0.15		
		FBS Bulkhead Flat	Packaged Lumber	2 per month	0.07		
Mystic	Valley Lumber Company	Inbound	F Flatcar	Bundled Lumber	2 per month	0.07	
		Inbound	RBL Insulated Boxcar	Paint Products	1-2 per week	0.2	
	Mystic Freight Station	Inbound	XM Boxcar	Metal Products	1-2 per week	0.2	
		Inbound	XM Boxcar	Wood Trim Products	1-2 per week	0.2	
	Mystic Brewery	Inbound	XM Boxcar	LCL Freight	1-2 per week	0.2	
		Inbound	XM Boxcar	Glass Bottles	1-2 per week	0.2	
	Valley Produce Association	Inbound	XM Boxcar	Beer Cartons	1-2 per week	0.2	
		Inbound	XM Boxcar	Beer Cartons	1-2 per week	0.2	
	Walker Transfer and Storage	Inbound	LO Grain Hopper	Grain	2-3 per week	0.35	
			LO Grain Hopper	Spent Grain	2-3 per week	0.35	
	Packard Farm & Ranch Supply	Inbound	RBL Insulated Boxcar	Bottled and Keg Beer	2-3 per week	0.35	
			GB Gondola	Glass Cullet	1 per month	0.04	
Valley Produce Association	Inbound	XM Boxcar	Bagged Animal Feed	1-2 per week	0.2		
		XM Boxcar	General products	1 per week	0.15		
Walker Transfer and Storage	Inbound	* Flatcar	Machinery	2 per month	0.07		
		LO Grain Hopper	Bulk Animal Feed	2 per month	0.07		
Walker Transfer and Storage	Inbound	XM Boxcar	Crates and Cartons	2 per month	0.07		
		RPL Mechanical Refrigerator	Perishable Produce	3-4 per week	0.5		
Walker Transfer and Storage	Inbound	RBL Insulated Boxcar	Non-perishable Produce	3-4 per week	0.5		
		XML Hi-cube Boxcar - 40' & 50'	Appliances	1-2 per week	0.2		
Kerrville	Engine Track	Inbound	XM Boxcar	General Merchandize	1-2 per week	0.2	
		XM Boxcar	General Merchandize	1-2 per week	0.2		
Kerrville	Texas DOT - Track 5	Inbound	T Tank Car	Diesel Fuel	1-2 per month	0.05	
		HM Aggregate Hopper	Crushed Limestone	6 per day	6		
Kerrville	Texas DOT - Track 4	Inbound	LO Cement Hopper	Bulk Cement	1-2 per week	0.2	
		LO Cement Hopper	Empty	1-2 per week	0.2		
Hill Country Salvage - Track 4	Inbound	LO Centerflo 4 bay Hopper	Sand, etc.	1-2 per week	0.2		
		LO Centerflo 4 bay Hopper	Empty	1-2 per week	0.2		
Blount Energy - Track 4	Inbound	LG Gondola	Empty	1-2 per week	0.2		
		LG Gondola	Scrap Metal	1-2 per week	0.2		
Blount Energy - Track 4	Inbound	T Funnel Flow	Clay Slurry	1-2 per month	0.1		
		T Funnel Flow	Empty	1-2 per month	0.1		
Blount Energy - Track 4	Inbound	XM Boxcar	Drilling Supplies	1-2 per month	0.1		
		XM Boxcar	Empty	1-2 per month	0.1		
Blount Energy - Track 4	Inbound	GT Gondola	Drill Pipe	1 per week	0.15		
		F Various Flat Car types	Drilling Machinery	1-2 per month	0.1		
Blount Energy - Track 4	Inbound	F Various Flat Car types	Drilling Machinery	1-2 per month	0.1		
		* All Types	Empty	3-5 per day	4		
Track 3 - Hold							
Track 2 (Passing)							
Track 1 (Main)							
						Total per day	36

Figure 2 — Mystic Branch Online Industries List

The car cards are from Micro-Mark as are the card boxes. I fill out a car card for every revenue car on the railroad. Then using the scheme described above, I generate the four destination waybill for each freight car. The car card and waybill for each car are kept in a plastic sleeve that is cut from business card binder sheets. Amazingly, the little sleeves are a perfect fit for the car card/waybill combination. To assist in operations, I created some special instruction cards on my computer, For example if a car is being loaded or unloaded I created an Instruction card that states that the car is being loaded/unloaded and must not be moved. For cars that are on hold, I created an instruction card that states that the cars is on hold, but may be moved and re-spotted. Figure 3 shows a typical freight car with its car card and four destination waybill.



Figure 3 — Typical Freight Car with Car Card and Four Destination Waybill

There is a card box for all tracks and rail served customers; each one labeled for the customer or track. The card boxes are situated as close to the customer or track as feasible. Also, each customer is labeled on the fascia for convenience of the operating crews. On the staging modules, the car cards are kept in plastic sleeves attached to the side of the module. These sleeves are self-adhesive label pockets that are generally used for file box labelling. Each Pocket is wide enough for two car cards; so, five pockets are adhered to the side of each staging module. See Figures 4 and 5.

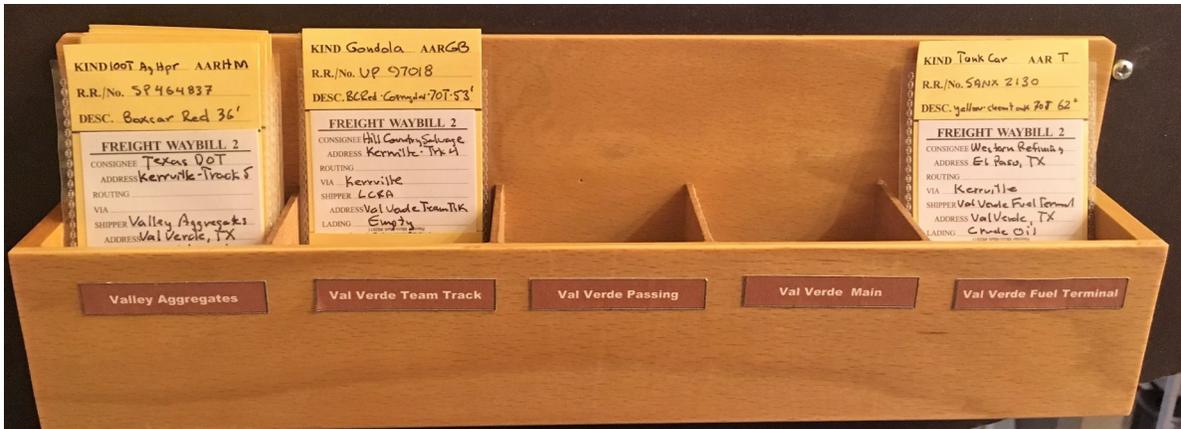


Figure 4 — Car Card Boxes

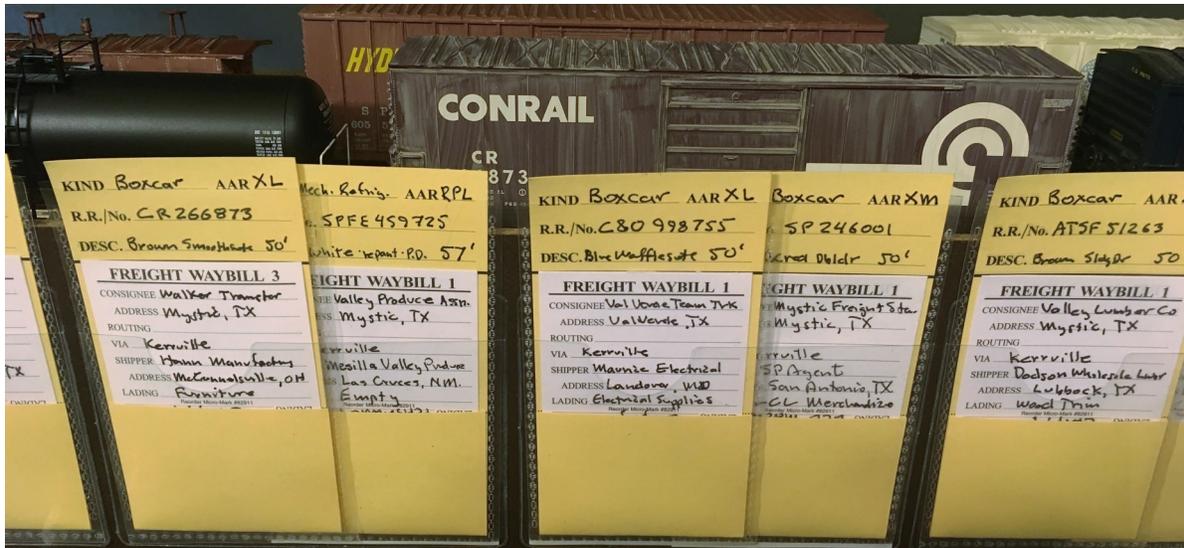


Figure 5 — Staging Module Sleeves

Operations Setup

To set up the operations for the Branch, I generated new worksheets within the On-Line Industries Excel Workbook discussed above. Each operating session is set up as a worksheet. Each session is numbered consecutively. Since this is a branch line, most all inbound traffic comes in via San Antonio. However, there is some traffic between rail served customers on the Branch, mostly empty cars. For example, a gondola delivering a pipe load to the Val Verde Team Track in one session can be shipped empty to the Hill Country Salvage in Kerrville in the next session, and then shipped off of the Branch in a succeeding session. All of these movements are set up on the session worksheet. There are columns for Town and Industry. All of the rail served customers are accounted for as rows in the worksheet. If there are multiple spots at the customer then there are enough rows in the worksheet to support that condition. There are also columns for car type and reporting marks, inbound and outbound lading. If the car is being moved **to** another customer on the Branch, this is indicated with an asterisk and a note indicating which customer. Likewise, if a car is being moved **from** a customer, this is indicated with an asterisk and a note indicating which customer. Generally (almost

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each session the inbound morning train from San Antonio is a nine car freight. So as the session is being staged, the available cars (not already staged for a session) are examined to see which cars should be included in the session. Cars that will be moved **from** an online customer are entered first. This is done by examining the **to** cars from the previous session. Once the cars that will be included on the inbound morning freight are determined, they are entered in the appropriate rows in the worksheet. See Figure 6 for an example of a session design.

SP Mystic Branch Operations									
Session 43	Town	Industry	Car Road & No.	AAR	Inbound Lading	Outbound Lading			
	Val Verde	Valley Aggregates							
	"	Val Verde Station Team Track	GONX 310153	GB	Steel Pipe	Empty *	* to Mystic Brewing Co.		
	"	"							
	"	Val Verde Fuel Terminal							
	"	"							
	Mystic	Valley Lumber Company	ATSF 93302	F	Palletized Lumber	Empty			
	"	Mystic Freight Station							
	"	Mystic Brewery	SP 696425	RBL	Empty	Bottled Beer			
	"	Packard Farm & Ranch Supply	MKT 4147	LO	Bulk Animal Feed	Empty			
	"	Valley Produce Association	SPFE 456114	RPL	Empty	Perishable Produce			
	"	"	SP 693240	RBL	Empty	Non-perishable Produce	* from Valley Lumber Company		
	"	Walker Transfer and Storage	PC 272747	XML	Appliances	Empty			
	"	"	SP 659105	XML	Appliances	Empty			
	Kerrville	Engine Track							
	Kerrville	Texas DOT - Track 5							
	"	Texas DOT - Track 4	SSW79486	LO	Sand	Empty			
	"	"	D&RGW 10079	LO	Bulk Cement	Empty			
	"	Hill Country Salvage - Track 4	SP 337585	GT	Empty	Scrap Metal	* from Val Verde Team Track		
	"	"	UP 97018	GB	Empty	Scrap Metal	* from Blount Energy		
	"	Blount Energy - Track 4							
	"	Blount Energy - Track 4							
	"	Track 3 -Hold cars							
	"	Track 3 -Hold cars							
	"	Track 3 -Hold cars							
	"	Track 3 -Hold cars							
	"	Track 2 (Passing)							
	"	Track 1 (Main)							

Figure 6 — Session Design Worksheet

As can be seen in the figure, the gondola that is delivering Steel Pipe to the Val Verde Team Track during this session will be shipped empty **to** the Mystic Brewing Company in the next session and then shipped loaded off the Branch in a subsequent session. Likewise, the three Cars noted as **from** were delivered in a previous session and will be moved to the new locations during this session. Currently, there are always eight pre-staged sessions...three on staging modules and five in padded storage boxes manufactured by Barkley’s Better Boxes here in Houston. When the daily evening freight from Kerrville to San Antonio arrives on the staging module, the cars are unloaded and a new session cycle begins.

Staging Session

Setting the Branch for the next operating session is not a complex process. Most of the process is fairly intuitive. However, I did generate a staging session “Cheat Sheet” as shown in Figure 7.

Staging Session

Off Layout Staging

1. Load SA staging module with cars from the KVTSAT run. Move engine to the Val Verde Team Track. Bring car cards.
2. Remove module and cards and bring to desk.
3. Remove cars and cards from the module and replace with next available operating sessions cars and cards. Be sure all of the loads are at the front of the train, any tank cars are at least two cars from the engine or caboose, and empties are at the rear of the train.
4. Move top SA staging module to layout, move modules up one.
5. Add just completed module to the bottom of the stack.
6. Cycle waybills on the just removed cars. Be sure to keep car cards with cars.
7. Prepare next operating session from available cars...make sure that all cars are destined for the Kerrville Branch with the current waybill sequence. Be sure to keep car cards with cars.

On Layout Staging

1. Cycle Waybills in Val Verde. Remove loads from open cars at Val Verde Team Track. Add Loads to Valley Aggregate hoppers. Add/remove "Car on Hold..." and "Car Being Loaded/Unloaded..." tags to/from the empty cars as required.
2. Cycle Waybills in Mystic. Remove loads from empty open cars and add loads to "loaded" open cars (flats, gondolas, etc.). Add/remove "Car on Hold..." and "Car Being Loaded/Unloaded..." tags to/from the empty cars as required.
3. Cycle Waybills for TXDOT on Kerrville Track 5. Remove loads from aggregate hoppers. Add/remove "Car on Hold..." and "Car Being Loaded/Unloaded..." tags to/from the empty cars as required.
4. Cycle Waybills for TXDOT, Hill Country Salvage, and Blount Energy on Kerrville Track 4. Remove loads from empty open cars and add loads to "loaded" open cars (flats, gondolas, etc.). Add/remove "Car on Hold..." and "Car Being Loaded/Unloaded..." tags to/from the empty cars as required.
5. Cycle Waybills for cars on Kerrville Engine Track.
6. Check "Outbound Trains" spreadsheet and check "Car on Hold..." and "Car Being Loaded/Unloaded..." tags for the empty cars that would be held from the next KVTSAT train (Max of nine (9) cars can be shipped including loads and empties).
7. Sort outbound empties so that cars to be shipped are ahead of cars to be held.
8. Using one of the engines from the Val Verde Team Track, assemble the next SATKVT train on the staging module and track toward Val Verde.
9. Using the other engine, assemble the next PS-SATKVT passenger train on the other module track.

Figure 7 — Staging Session "Cheat Sheet"

Switch Lists

A switch list is prepared for each freight train but not for the yard jobs or the passenger trains. It is prepared by the Conductor when the train order for the movement is issued. I generated the switch list "blanks" using Excel. The blanks are sized to fit on a small clipboard. There are hooks placed on the fascia in all switching locations to hang the clipboards. Figure 8, shows a blank switch list.

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First, the Conductor indicates the Session Number, Train, Engine Number, Engineer, Conductor and Date. Then, using the car cards for the train, the Conductor fills out the form for all of the cars. When the train reaches its destination, the Conductor checks the car card boxes for any outbound cars and adds these to the form. The entries are separated using a caption such as “Pickups and Transfers”. As the setouts and pickups occur, the Conductor places a check mark by each car line. The car cards for the pickups are placed on either the “main” or “passing” card pocket depending on the situation. Car cards for the setouts are placed in the appropriate customer card pocket along with a “Car Being Loaded/Unloaded – Do Not Move” instruction card. Figure 9 shows an example that has been completed.

Southern Pacific			
Session No. _____			
Engr. _____			
Train _____ ENG # _____ Cond. _____ Date _____			
No.	Car ID	Type	Destination
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			

Figure 8 — Blank Switch List Form

Southern Pacific			
Session No. <u>42</u>			
Engr. <u>ECB</u>			
Train <u>MYT</u> ENG # <u>5344</u> Cond. <u>SEM</u> Date <u>10/13/12</u>			
No.	Car ID	Type	Destination
1	SP693240	RPL	Valley Lumber Co.
2	ATSF305117	LO	Mystic Brewing Co.
3	SSW61797	XM	Mystic Freight Sta.
4	SFRC1002	RPL	Valley Produce Assn.
5	MP966888	XP	Backard Farm & Ranch Supply
6			
7			Pickups & Transfers
8			
9	GNRC 0640	XM	Hold in Kerrville • Trk 3
10	SFG452147	RPL	Ramseyer Gro Supply • Clarksville • via KUT
11	CR363278	RPL	Bielme Food Supr • Kansas City, MO • "
12	SP778514	LU	Hold in Kerrville • Trk 3
13	RBDK 11056	XM	SP Agent • El Paso, TX • via KUT
14	ATSF309693	LO	Hi Plains Feed • Lubbock, TX • via KUT
15			
16			
17			
18			
19			
20			
21			

Figure 9 — Completed Switch List

Train Orders

As mentioned earlier, the Mystic Branch is an SP railroad and all freight trains run as extras. So, Train Orders are issued for all of the freight trains. I was lucky enough to find an actual SP Rule Book at an estate sale. I use it as a regular reference for operations on the Branch. For the Branch, train

orders are written on a plain piece of paper by the Dispatcher and passed to the Conductor. Following are some examples:

For SATKVT: ENG 5344 RUN EXTRA SAN ANTONIO TO KERRVILLE

For VVT: ENG 1427 RUN EXTRA KERRVILLE TO VAL VERDE AND RETURN TO
KERRVILLE

For MYT: ENG 5344 RUN EXTRA KERRVILLE TO MYSTIC AND TAKE SIDING
AND WAIT FOR PSKVTSAT ENG 1427

EXTRA 5344 EAST SWITCH MYSTIC RAIL SERVED CUSTOMERS AND
RETURN TO KERRVILLE

For KVTSAT: ENG 1427 RUN EXTRA KERRVILLE TO SAN ANTONIO

Operation Descriptions

Actual operations of the various trains and yard jobs will be featured in subsequent parts of this series. See you next month!

San Jacinto Model Railroad Club

by Bob Dannenbrink

I am fortunate to be a member of the San Jac club, and often count the reasons. First, of course, is the association with many people who have similar interests in model railroading. The hobby has led me to have contact with hundreds of people I would not have otherwise known, much to my delight.

The club is unique in that its purpose is not building a layout. I have belonged to several layout clubs; the last two, Walnut Creek, CA and HSME lost their layouts because of foreclosure of space. Both recovered, but with some trauma. Rather than layout building, the San Jac purpose is to enjoy and promote the hobby of model railroading; I believe we fulfill that goal.

As I write this, we are in the middle of the November Layout Tour. As far as I can determine this is the oldest, most comprehensive, best organized celebration of Model Railroad Month in the country. I once wrote a letter to Model Railroader magazine ex-tolling our tour and got a brief mention in one of their issues. I didn't write it to brag, but to give an example of how the hobby can be promoted. I think they missed the boat in not picking up on it.

I have copies of the tour schedule back to 1994 which listed 39 layouts. The 2009 schedule features 79! It is interesting to note that seven layout owners are listed in both '94 and '09. These are: Gordon Bliss, Don & Betty Bozman, Bill Wright, Dennis Grigassy, Gil & Virginia Freitag and Jim Long. Gordon, Bill and Dennis have different layouts now, but they hung in there! It is

further proof that the hobby is long lasting. Although the Tour started well before 1994, I don't have any record before that time. I know that the tour list was the basis for the layout visits when the San Jac club hosted the 1989 National NMRA convention. On a list of achievements, successfully sponsoring a National Convention should rank high!

Another outstanding accomplishment is the February Train Show. I believe the first one was in February 1971. I was new in town and missed that one, but well remember 1972 because Gil Freitag recruited me to help with the program. The show has been continued each year (except 1989) with great success. The combination of operating layouts, sales tables, clinics and association with other modelers makes for a great time. Layout visits in the fall and the Train Show in Winter keep model railroading enthusiasm going and are great chances to introduce new people to the hobby.

The Club reaches beyond our local boundaries. We are closely associated with the NMRA (National Model Railroad Association) and many in our club are long time members. About every four years the Lone Star Region convention is held in Houston and we provide most of the planning and execution of that meet. Many San Jac members have held posts on the Lone Star Region board. Currently, Jim Long, Tracy Mitchell, Ray Byer and Virginia Freitag are serving various positions.

I have touched only a few highlights of what the club is and does. One of my concerns is that we do not have a better record of our history. I have copies of the DERAIL back to 1986 and as mentioned previously, layout tour schedules from 1994, but nothing before that. I'd like to put these in a place accessible to all, now and in the future, but there is no place for that.

If there is a point to all this, it is that although we have accomplished a lot in the past, it is only a foundation for the future. We must continue to have good programs and attract new members.

Your part is to recruit and welcome new members; if we don't grow, we die. The most difficult job in the club is being Vice President, in charge of programs. Even if you can't put on a program yourself, give him suggestions, ideas and all the help you can. It's not his job alone, it is all of us.

Editors note: Since September 2015, there has been a concerted effort to digitize the club's records. This has included:

Purchase of a club laptop with supporting software

Use of Quicken to record club transactions back to 2009.

Digitizing club files (whatever I could find) including GHTS and Layout Tours

Digitizing Derails from 1990 with a few older issues

The computer is backed up nightly as well as being duplicated in the Microsoft cloud.

Building a Pair of Switching Modules – Part 1 ½

On occasion you hear a comment that throws you completely off center, and makes you rethink many of your preconceived notions. At our Holiday party I had one of those moments.

I had the great privilege to help run Cliff Cheeseman's monumental B&O empire during the layout tours, and was held in awe of the quality, complexity, and sheer scale of his model railroad. Toward the end of the operating session I asked him if, after 40 years of working on his layout, there is anything he'd do differently if he had to start over. I wasn't able to get an answer in the frenzy of visitors, so I asked him again at the party.

His reply was "sure. I'd build the benchwork with ¾" plywood, put down homasote for the sub-roadbed, and lay track on cork roadbed over the top. Anything else and you've got a drum!" This sage advice got me thinking. Perhaps no other decision will affect the long term quality of your model railroad than your choice of decking, sub-roadbed, and roadbed.

As a beginner, there is often no more bewildering subject. What one chooses, another spurns. And often with little more than a grumbled jeremiad against or a full throated endorsement for their choices. So rather than simply give you my preference, I thought it wiser

to share the available options and explain why one might make certain decisions.

First, it might help to understand the terms if you don't already. Decking is what you use to cover the benchwork framing and support both the sub-roadbed and roadbed above, as well as your scenery. Sub-roadbed is an overlayment of some form that is (sometimes) attached to the decking, supports the roadbed and track above, and helps create the proper change of grade found in actual railroad lines. Roadbed, as the name implies, is what supports the track, its ballast, and any consequential motion thereof while also creating as realistic silhouette. Incidentally, all three also serve a secondary purpose. They serve to isolate vibrations produced on the track and keep those vibrations from telegraphing through these layers and creating large amounts of sound.

Your choice of decking, sub-roadbed, and roadbed materials create a myriad of opportunities and issues, but for us these come down to five decisions. In no specific order they are: strength, weight, durability, cost, and insulating characteristics. While our immediate concerns are for a pair of modules, I'm going to take the time and cover these materials with an eye to both portable and permanent layouts. What follows are some observations. No doubt, some will take me to task for my views on certain materials. I will endeavor to be as partial as possible.

Decking can be one of the most stabilizing of factors for your model railroad. It can also, in some situations, be omitted entirely and therefore be one of the most destabilizing materials. One school of thought says that you should use the thickest material possible for this, since it will have to carry the weight of not only your models and track but also any scenery. I'm going to save discussion of materials until further down in this article.

Sub-Roadbed has more specific guidelines, since it has to conform to the standards followed during the period and of the railroad you've chosen to model. However, some allowances must be made for the thickness of material needed for sound deadening and general support.

Roadbed is possibly the most universally employed of materials. The vast majority use either cork or homasote. And the users of these products are zealous in their support of their chosen material. Though other materials are occasionally used, these two are the ubiquitous. Now it's time to discuss all of the materials with as much focus as we can.

The most commonly used material is plywood which, with its multi-ply construction serves to dampen vibrations from being conducted into the benchwork and being amplified.

The thicker the plywood the more layers it has. So it would be reasonable to assume that thicker is better. Unfortunately, there are two basic problems:

construction and cost. There are several different grades of plywood available, and each has its own qualities. So 3/4" plywood might be dandy, but marine-grade is going to be significantly better at dampening vibrations, stabilizing benchwork movement, and supporting layers above than contractor grade. And then the cost creates an inverse issue. Contractor grade plywood can be had from a big box store for around \$33 a 4' x 8' sheet, whereas marine grade plywood runs more like \$90 for the same thing.

As if that weren't enough to confuse you, there are other materials to consider, like OSB, MDF, and Homasote. Each of these products is made from an amalgam of materials held together with adhesives to create a cohesive sheet. OSB is made with wood splinters layered with an adhesive in layers to create a board. MDF (Medium Density Fiberboard) uses even smaller fragments of wood that have been transmuted into fibers, and then adhered to each other using pressure and fillers like wax. Homasote is made from recycled paper waste, and has a consistency not unlike papier-mâché. This paper blend is the pressed under high pressure into boards. All three have various structural positives. OSB is at times stronger than soft woods and certain plywoods. MDF is incredibly cheap. Homasote can be cut using a boxcutter. And because they are manufactured products they help dampen sound, with MDF and Homasote being superior in this. But all three are susceptible to humidity

and moisture.

Cork is used for both roadbed and on occasion sub-roadbed. This material is flexible, widely available, and forgiving in its use. However, it can also be expensive when used to cover a large area, and it is susceptible to dry rot.

To add a final bit of confusion there are extruded polystyrene foam insulation sheets available in your local home improvement store. These sheets come in either blue or pink and are not to be confused with the white stuff made up of small balls of foam which, to my knowledge, has not been used thus far in model railroading due to it's unstable structure.

All of these products have been used in model railroads, and in the right circumstances all are useful. But each has a drawback, so choosing which is right for your situation is most definitely an individual choice. As for the final option, None of the above, this is usually only done when the scenery will include a number of deep valleys or water features.

There is another elephant in the room, and that is the difference between buying the material pre-cut versus cutting it yourself. Remember there is always a tradeoff of time versus money. The question you have to ask yourself is this: is my time worth less than the cost of buying a prefabricated item? For some of us the answer is yes with some materials. With others it is a definite no. Only you can decide this. But be honest with

yourself when answering these questions. I have known many a model railroader who had grandiose plans of cutting their own homasote roadbed, only to leave a stack of it in their garage gather dust and water while they lay pre-cut materials.

Before I sign off, a note about sound production. Since I teach orchestra and choir, I do have a little expertise in this area. When you're creating any structure you are essentially making an instrument. And musical instruments are generally made of a single material, as that's the best way to make sounds. On instruments where that isn't happening, the material that produces the tone is suspended in a way that it can create vibrations. So logic dictates that if you're trying to avoid sound production, you should take the opposite steps. If you're going to use all three (decking, sub-roadbed, roadbed), then it is in your best interest to use three disparate materials.

For instance, Cliff Cheeseman's words of wisdom. They work because the decking of wood isn't created the same way the homasote is, and therefore won't transmit sound from the trains above on cork. Each layer works to deaden sound, to the point that the hollow underside has no vibration to amplify. Using this basic knowledge you can logically plan using whatever you decide to use. You just have to do your planning and research before you can take that first step of construction.

Chapter 2: A Call to Muster – Part 2: The Southern Situation

{From A Call to Muster – Part 1: The Northern Situation:

As hostilities became eminent between the Union/Northern states and the Confederate/Southern states, both sides needed to raise and train armies. The Northern states, of course already had an army but in 1861 it was not of sufficient size to fight a major war. The Union also had a good stockpile of weapons and munitions, including frigates that were almost immediately dispatched to block the Southern ports. The Southern states had neither trained men nor significant weaponry to initiate any major battle, let alone begin an offensive. As in just about every aspect of military considerations during the Civil War the Union had significant advantages in all these areas. However, problems existed, and both sides faced issues that had to be dealt with and many of those problems and solutions involved the use of railroads. “Railroads had never been called on to transport hundreds of thousands of troops over great distances and follow them with numberless tons of food, munitions and supplies. Military strategy based on long supply lines serviced by rail was yet to be devised. The co-ordination of railroad facilities necessary to forage thousands of army horses and mules far from the grain fields was undreamed of.”¹}

In the South there were few large cities and they were not as well connected by rail as the Northern cities. The physical area of the newly emerging Confederacy was as great or greater than their Northern rivals, yet the South had 12 thousand less miles of operational rail lines than the North. The Confederate Capitol was initially located in Montgomery, AL (deep in the South), so for the South, the initial main issue was the vast distances that had to be traversed and the poor transportation avenues that existed at the time. Given the long distance from the initial Southern Capitol to where hostilities were likely to be initiated significant “command and control” issues also existed, most notably how to get significant numbers of troops from a far more sparsely populated South to “the front”. Most railroads that existed in the South were designed to get goods from plantation areas to port cities. Therefore, Southern cities were not as connected by rail as those in the North were. Unlike the North there was no edict that troops had to travel to their initial training centers via train and in fact many came on foot or via horseback. However, to get large groups of men and supplies from rural Southern areas to training areas railroads were still the best option.

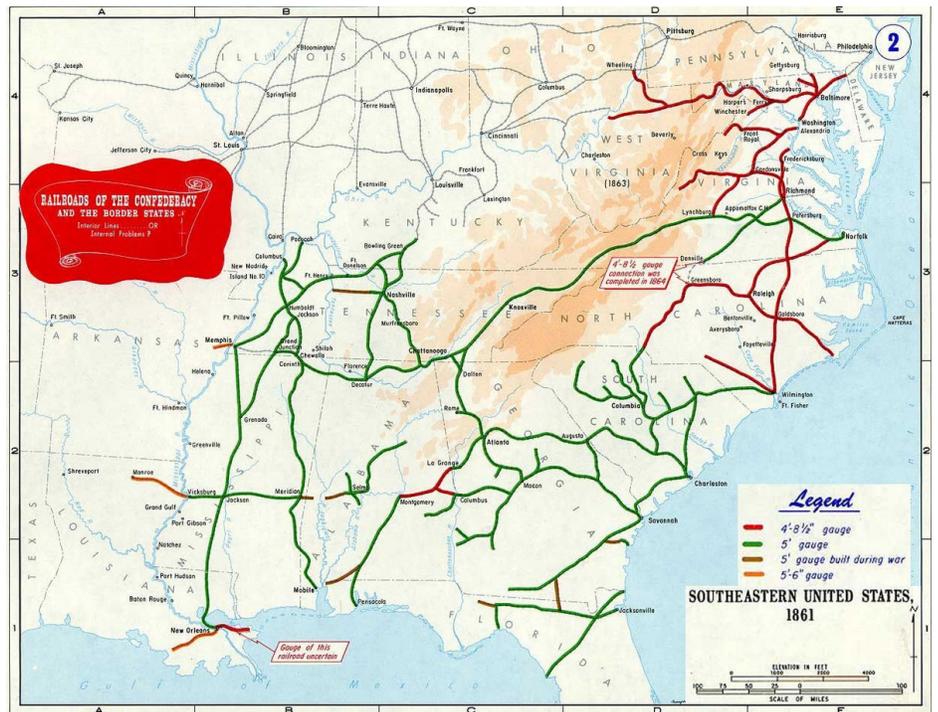


Figure 1 – Confederate Railroad Map

As was the case in Baltimore, MD Southern railroads consisted of many competing/rival railroad companies that often simply did not play well with each other. Seldom did competing railroads, serving a Southern city, connect to each other. Troops had to get off one train and march across the city to get onto another train to continue their journey. So, where two or more major Southern rail lines existed in proximity a training camp would typically emerge nearby. Probably the most critical camp was at Manassas Junction, VA which was served by the Manassas Gap (direct line to the critical Shenandoah Valley) and Orange & Alexandria (ran through the heart of Virginia) railroads. This camp was critical because of its proximity to Washington, D.C. and to counter the large Federal troop concentration there.

Also, as noted in the above figure, there was no standard rail gage at this point in history (true for the Northern states as well). While this certainly slowed down military transports of troops and supplies by rail some creative solutions were developed. Competing rail companies were already used to transferring goods from one line to the other across a city, so the fact that the lines operated on different gage track was of little consequence as they had well established operating procedures and conveyances to transport materials the short distance required. In addition, in some locations, they would simply lift a box car or flat car off its wheel set and place it onto the wheelset associated with a different gage.

For the most part Southern boys had little concept of what it meant to be a soldier or what life would be like as a soldier. In fact, many a fresh Southern recruit would pack large suitcases, crates, chests, and lockers with many of their personal possessions and clothing before starting out to travel to their assigned training camp (at the beginning of the war the South had no mandatory conscription in effect and few instructions were given to new recruits). These large boxes had to be confiscated from the soldiers when they arrived at their training facility as it was just too impractical for a foot, cavalry, or artillery soldier to carry so much personal gear. Much of the available warehouse space at Manassas Junction was packed with these personal items to be retrieved once the conflict was over.

Given the necessity of prosecuting a war, it was not unusual for troop trains to run way over their weight limit and this put excessive wear and tear on locomotives, rail cars, and especially the rails. It is not uncommon to find historical pictures of troops riding in and on top of box cars (or even animal/cavalry horse cars) especially when flat cars were used to transport artillery pieces. In the 1860's main rail lines were mostly made of 60-pound rail (compared to the 120-pound rail used today). In addition, rail was made from iron, not steel. So even though era locomotives and boxcars were proportionally lighter than today, rail wore out as fast or faster. With the port blockade and steel production being switched to producing armaments the South had little manufacturing capacity remaining to replace worn out rails (in fact, much of the rail used in Southern rail lines was imported from England – heavy rail was used as ballast in sailing ships crossing the Atlantic). Worse, in some places in the South “U-Rail” was still in use. U-Rail was simply a piece of flat iron strapped atop a wooden rail and therefore was not designed to carry much weight. Furthermore, at this point in history stone or rock ballast was seldom used in the construction of rail beds and pressure treated lumber simply did not exist. Therefore, rail maintenance was a constant issue and unlike the North, the Confederacy did not have extra men and resources to commit to maintaining the rails.

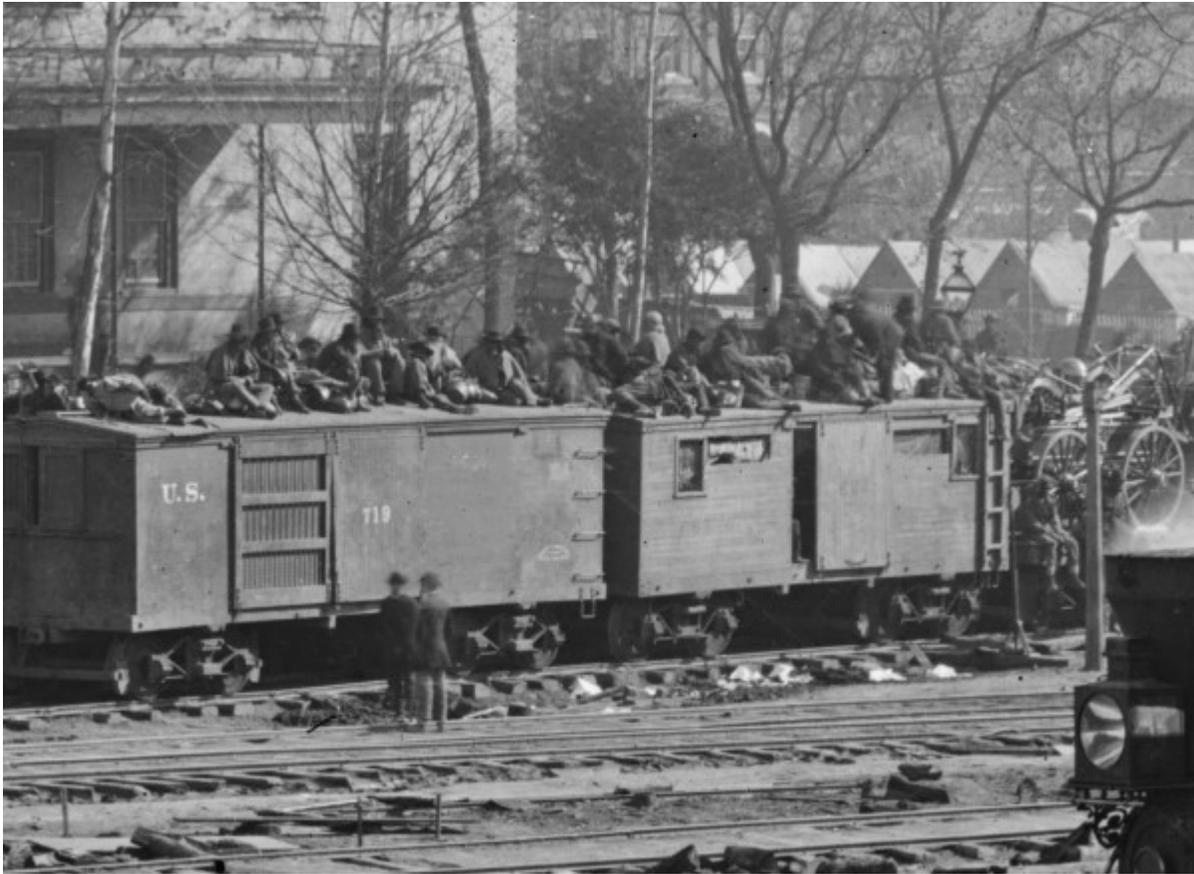


Figure 2 – Troops Travelling Via Train

Sometimes the loyalty of the locomotive engineer would come into question, especially early in the conflict and near the border with the Northern states. In April 1861 a scheme was devised in Richmond, VA to mount an attack on the Federal arsenal at Harper's Ferry. Multiple trains were loaded with armaments and munitions and travelled overnight through Virginia picking up companies of soldiers from numerous Virginia cities along the way heading towards Harper's Ferry. Early in the morning of the next day, barely 5 miles from Manassas Junction, the lead train slowed to a crawl and came to a stop. Success of the mission depended on speed and surprise. Infuriated, the commander of the mission got off one of the box cars and walked to the locomotive where he found the engineer and fireman essentially dozing off or taking a short break. The Confederate commander had suspicions that the engineer was a Union sympathizer and was unwilling to haul his Southern soldiers. The Confederate commander then produced a revolver, thereby ending the argument, and the fireman quickly started throwing fresh dry wood into the firebox and the train made 40 mph all the way to Strasburg, VA.

In another incident a Confederate troop train came to a halt on a slight grade. Upon investigating what the problem was some of the wood was wet and the locomotive was having difficulty making steam. The engineer was directed to "get this train moving!" The engineer and fireman promptly stripped down to just their underwear and tossed their clothes into the firebox. The steam pressure began to increase, and the train was able to clear the crest and coast down grade to the next refueling station. Now, whether this is myth/legend/lore, or a factual incident is a bit unclear as I could not independently verify this event. However, if this made you smile a bit, it served its purpose!

¹"Victory Rode the Rails: The Strategic Place of the Railroads in the Civil War", Bobbs-Merrill, 1953

This month, we are going to take a look at the various operational possibilities of a concentrated switching area on your layout. Whether you choose to incorporate a switching area or areas into an existing layout or simply build a small switching layout along a wall or walls in a small layout room, the fun and enjoyment you can have from this type of operation is unlimited.

On my Texas & New Orleans Hearne Sub, I recently added such an area known as the Sterrett Street Industrial Area. This was an area on the prototype that was located north of downtown Houston and just north of the T&NO San Jacinto Street Freight Station. This area was comprised of various industrial facilities, including warehouses, manufacturing plants and team tracks. The “lead track” to the complex was off the T&NO “Rabbit” mainline to Shreveport and other East Texas destinations. The “lead” actually ran down the middle of Sterrett Street for some distance, so the “street running” feature makes the area even more interesting.

The prototype area included such industries as Houston Sash & Door, James Bute Paint, Sunshine Biscuits, Fisk Tire, National Supply and the T&NO McKee Street Team Track. The area was accessed by a “lead track” that ran down the center of Sterrett Street with spurs running off to the various industries. While the prototype covered several city blocks, the modeled area must obviously utilize selective compression to replicate the scene.



On my layout, the area is basically a two-foot-wide by twelve-foot-long section along a wall and connecting to the rest of the layout down the adjoining wall. As the track is stub ended, I found it necessary to modify the prototype track arrangement by including a runaround track to enable a switch crew to run around their cars in order to deal with both trailing and facing point spurs off the lead track. While not exactly prototypical, this arrangement does allow for more interesting and complex switching movements.

The motive power required is a small switching locomotive, usually an Alco S-4 or EMD NW-2, suitable for negotiating sharp curves and small switches found throughout the area. While in my era, forty-foot cars were usually the norm, there would be an occasional fifty-foot box car or gondola consigned to one of the industries in the area. While boxcars were the prevalent car type in my 1950s era, the team track would receive the odd flatcar or gondola from time to time.

While a one-man crew is preferable due to aisle width restrictions, I do see the possibility of using a two-man crew on occasion, such as when not having a full operating session on the rest of the layout. The amount of time required to switch the area would depend on the experience of the operator(s) and the number of cars to be switched on a particular shift, with one to two hours being the average.



Rather than have the crew deal with car cards, the plan is to either provide a switch list for their use or have a blank switch list available for the crew to fill out. If you are modeling a more modern era, then it should be possible to utilize some form of computer-generated switch list such as JMRI. Another excellent example of a modern era switch list may be found on the Thomas Klimoski Georgia Northeastern model railroad website (www.thomasklimoski.com) by clicking on the “Operations” page and then clicking on “Switch Lists”. His switch list is set up in an Excel spreadsheet and is actually based on the prototype Georgia Northeastern Railroad Switch List form.

Obviously, a detailed track layout diagram is essential for locations of the various industries and the specific car spots at those industries. This type of switching operation calls for cars being spotted at specific doors or “re-spots” being handled accurately rather than simply shoving a cut of cars into an industry track in random order. There are also situations where “off-spot” cars must be placed as loading or unloading spots become available.

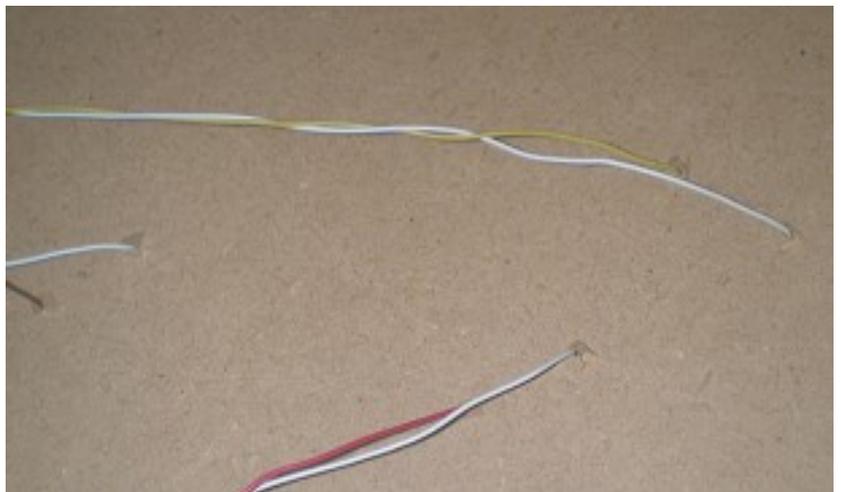
On my layout, switch crews only have to couple to their outbound cut when their work is completed and either leave the cut where it originated or pull the cut to the nearby main track. One could also have the outbound cars moved to a staging area on or off the layout.

For more information on modeling this type of industrial area, see the Paul Dolkos article in the October 2017 Model Railroader titled “Tracks in the Street” or check out the video on his “Baltimore Harbor District” model railroad. Both will give you some great ideas on building and operating on this type of layout.

Mark’s Minute

By Mark Couvillion

Track feeders are the tie between the track and the power bus under the layout. The bus wire carries the required power to the trains. Track, though conductive, does not carry electricity like a wire. Frequent feeders from the power bus guarantee the trains will consistently run well. Feeder wires are small so they are not observed connecting to the rails. I prefer using short pieces of Cat5 computer cable, 12” – 24”, as the feeders to the rail from the bus. These solid copper 20 – 22 AWG wires are easy to work with, maintain their shape, and will carry enough current to power 3 – 6 feet of rail with no observable power loss. I recommend a feeder for every piece of rail as the minimum, usually one feeder about every three feet for the smaller gauges. For the larger gauges, a slightly heavier feeder may be needed once every 6 – 10 feet. Try to not allow track power to be carried by metal rail joiners. Rails joiners are for track alignment only, not electrical connections. They are not reliable conductors.





San Jac RR Club Meetings take place the first Tuesday of each month at 7pm

Bayland Community Center
6400 Bissonnet St. Houston, TX

[Click here for directions](#)
Visitors are always welcome!

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Next Meeting

TUESDAY, JANUARY 8

“Switching or Operating a Model Railroad ”

by

Kelly Russell

Refreshments:

Virginia Freitag (drinks)

Tom Bailey (cookies)



Video Corner

The Largest Snow Blower in the World

<https://www.wimp.com/the-largest-snow-blower-in-the-world/>

