

*Realistic Operations
for
Model Railroaders*

by

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We all love to run our model railroads and enjoy the pleasures of the hobby. But one of the things we can do that adds to the fun is to run our railroads in a more realistic manner !

If you have a large enough layout, you can invite a few chums (or chumps as the case may be) to help “run” the railroad.



The railroad assignments would normally include:

Dispatcher

Releases /Routes trains, keeps a Train Sheet, generates Switchlists.

Engineer(s)

Operates trains, performs brake tests, whistle signals.

Yardmaster(s)

Performs yard switching operations, classifies trains.

Trainmaster (Conductor)

Oversees all railroad operations, selects trains to be run and the sequence.

Realistically, you cannot have 10 crewmen operating on a 4 X 8 layout !

The larger the layout, more assignments can be made. For smaller layouts, two to three crewmen are adequate.



You might want to consider using some or all of the following documents to help “run” the railroad. Documents such as:

1. Time Tables
2. Waybills
3. Switchlists
4. Train Sheet
5. Bad Orders
6. Train Orders



Train Order – Gives special orders to a train.



Southern Pacific Model Railroad

TRAIN ORDER

Train Order No. 912

4 September 2011

To: Sacramento

Train No.: X5510

Train X5510 hold at Sacramento to allow MOW Train X7551 to access AUB spur. After MOW Train passes, contact Dispatch for clearance to proceed.

Dispatcher: RBT

Time: 1325

Opr: JEM



Switchlists – Used by the Yardmaster to make up a train's consist.

SOUTHERN PACIFIC MODEL RAILROAD SYSTEM
Train Switchlist

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Session No. 26
Agent @ SAC
Dispatcher: _____

Sequence # 1
Date: 02-14-2011

Train No. 201 Engine No.(s): 6640

Seq No.	Road Mark	Number	Type	Commodity	Shipper	Consignee	From	Int Chg	To
---	----	-----	---	-----	-----	-----	-----	----	----
1	SLSF	51523	G	Rail Ties	Karen Dst	TRK Yard	EMG		TRK
2	SP	4653	N	----	SP RR	SP RR	SAC		SAC
3	SP	440523	H	Empty	R&I Proc	RBT Mine	CFX		AUB
4	SP	440728	H	Empty	R&I Proc	RBT Mine	CFX		AUB
5	AGAX	242	T	Dsl Fuel	Shell Oil	SAC Yard	RVL		SAC
6	GATX	8556	T	Dsl Fuel	Shell Oil	SAC Yard	RVL		SAC
7	CSX	130008	X	Empty	R&I Proc	TRK Yard	CFX		TRK
8	NYC	174182	X	Empty	R&I Proc	SAC Yard	CFX		SAC
9	SP	202516	X	Empty	R&I Proc	SAC Yard	CFX		SAC

Remarks:

Switchlists – An example of a partial switchlist made on Excel.

SOUTHERN PACIFIC MODEL RAILROAD - Sacramento Subdivision

TRAIN SWITCHLIST

Date: 16-Apr-11

Train No: 201 LOCAL Locomotive(s): SP 6640

Caboose: SP 4653

Stops SAC RVL CFX AUB TRK EMG SAC

Session #: 34 Sequence #: 3

SAC

Pick-Ups

Rd Mark	Rd #	Type	Commodity	Shipper
NYC	174182	X	Chemicals	Denali Chem

Set-Outs

Rd Mark	Rd #	Type	Commodity	Consignee
None				

RVL

Pick-Ups

Rd Mark	Rd #	Type	Commodity	Shipper
AGAX	242	T	Dsl Fuel	Shell Oil
GATX	8556	T	Dsl Fuel	Shell Oil

Set-Outs

Rd Mark	Rd #	Type	Commodity	Consignee
NYC	174182	X	Chemicals	Shell Oil

CFX

Pick-Ups

Rd Mark	Rd #	Type	Commodity	Shipper
None				

Set-Outs

Rd Mark	Rd #	Type	Commodity	Consignee
None				

None

None

Train Sheet – Used by the Dispatcher to track the movement of trains over the system.

Dispatcher: RBT **SOUTHERN PACIFIC MODEL RAILROAD SYSTEM – Sacramento Division** Date: 12 Feb 2011

Record No. 25 **DISPATCHER'S RECORD OF MOVEMENT**

EASTWARD – Read Up

WESTWARD – Read Down

				12	262	TRAIN NUMBER or ID		261	13					
				6046 None	5510 1163	Locomotive(s) # / Caboose #		5510 1163	6046 1064					
				0	6	Number of Cars*		4	2					
				MAN	T FRT	Train Type		T FRT	MAN					
↑	↑	↑	↑	↑	↑	M.P.	STATION	Cap	↓	↓	↓	↓	↓	↓
				1042	1500	0.0	SACRAMENTO YARD	11	1314	1100				
				↑	↑	15.3	Roseville	3	1400	1416				
					1333 1359	46.1	Colfax	5						
					1238 1307	50.6	Auburn	3						
					No Stop	64.9	Emigrant Gap	2						
					↑	71.0	Summit	0						
					1146	85.6	TRUCKEE YARD	7	1517					
				0900		112.3	GALT	35		1246				

Legend: Arrival Time →  Departure Time

Train Type: LOC = Local Freight X(Loco #) = Extra
 T FRT = Thru Freight MAN = Manifest
 PASS = Pass/Comm

* = Includes Caboose

NOTES:

1.

Bad Order – Denotes a loco, rolling stock or other railroad item in need of repair.

SOUTHERN PACIFIC MODEL RAILROAD



BAD ORDER

Car/Loco No.: 202516

Road Mark: SP

Date Out of Service: 18 Sep 2011

Defect: Derails - check wheel guage

Returned to Service Date: 21 Sep 2011



A note about class & classification yards.

Trains are generally divided into “classes,” with 1st Class trains having priority over 2nd Class trains and so on.

- If you are running a 2nd Class train and meet a 1st Class train, you will take the siding and give the 1st Class train the mainline.
- Extras are usually the lowest class train on the railroad; however, the Dispatcher may make exceptions due to special conditions (e.g., perishables, livestock, etc.).
- Eastbound trains have priority over Westbound trains.

More about class & classification yards.

If you have a yard with classification track(s), the Yardmaster can sort rolling stock, for example, according to destination.

You can also classify by train type; e.g., Manifest, Local, Thru Freight, etc.

A few more ideas for realistic operations on your model railroad.

1. Some modelers like to use “fast time” clocks. Ratios of 4:1 or 6:1 or 8:1 or 11:1 are commonplace.
2. Run different types of trains; e.g., Thru Freights, Passenger, Locals, etc.



A few more ideas for realistic operations on your model railroad. (Cont'd)

3. For the Engineers –

On a prototype train, a brake test was necessary to make sure the gladhands were all connected and the air in the brake line was up throughout the train.

Model railroaders, obviously, do not connect air hoses.

However, the standard practice has been for the engineer to pull the slack out of the couplers to make sure all the cars in the consist are properly coupled. This practice serves as a surrogate “brake test.”

A few more ideas for realistic operations on your model railroad. (Cont'd)

4. Also –

Engineers use whistle signals to indicate various train movements, etc. Some of the basic ones are:

- --** (= train commencing a forward movement)
- o o o** (= train commencing a backward movement)
- o** (= train stopping)
- (= train approaching a station, junction or RR crossing)
- --- o -----** (= train approaching a grade crossing)

A few more ideas for realistic operations on your model railroad. (Cont'd)

5. And Finally –

Trains are heavy; therefore, they cannot start or stop quickly !

The most common mistakes of the inexperienced (and small children) are jack rabbit starts and screeching halts.

Slow, smooth movements are the order of the day. This can be enhanced by using a momentum throttle.

Radio Communications

If your model railroad is large enough and/or there is “separation” between the **Dispatcher** and the **Engineers**, then using a radio communication system is a good idea and adds to the realism of operations.

Before a train leaves a yard, it must be “cleared” to do so.

Typically, some information is relayed to the **Dispatcher** before clearance, such as:

Locomotive Number(s)

Caboose Number

Number of cars in the consist

Typical Conversation

Engineer

“Dispatch , SP Train 201 ready to depart Sacramento. Locomotive is SP 6640 , 8 cars in the consist, caboose is SP4653.”

Dispatcher

“Train 201, you are cleared to leave Sacramento at 1427.”

Engineer

“Train 201, copy”

More on Radio Communications –

Engineers/Conductors should report train's location to the **Dispatcher** while on the line and is entered on the Dispatcher's Train Sheet.

Upon arrival, **Engineers/Conductors** should give their locations to the **Dispatcher** at all towns on the schedule. This enables the **Dispatcher** to know where all trains are at any given time.



Typical Conversation

Engineer

“Dispatch, this is SP Train 201. Arrived at Emigrant Gap.”

Dispatcher

“Train 201, copy, we have you in Emigrant Gap at 1603.”

Engineer

“Train 201, copy”

Lastly ---

OK, we have reviewed some of the things that you might do to make your railroad run in a more realistic manner. The question that you may be thinking is;

Where does all this stuff come from and how do I get/do it ?

Here's how ---

For the Documents:

**Timetables, Waybills, Train Sheet, Bad Orders,
Train Orders**

Try Microsoft Word or Excel

Switchlists

Microsoft Excel

**There are several software programmes that
generate a Switchlist. Check the Internet.**

**[R. B. will offer to use his software (modified to
your railroad) and load it onto your computer for
a small fee. Just call me at (248) 767-7451]**



If you would like a copy of this presentation, please e-mail a request to:

SWVRC@USA.NET



Well, that's it folks !!

Hope you enjoyed.

**Thank you and right neighbourly of you
to come too !**