

Overlaying TT&TO onto a solid operating railroad is not difficult. Allow me to make a few suggestions:

Which trains go into the timetable and which are extras?

Steve suggested a mix of scheduled trains and extras. Scheduled trains operate across the railroad with minimum of paperwork and supervision (see Table 2). He cautioned, however, against making every train a scheduled train. Doing so reduces the operating flexibility and is more difficult to manage should one or two of the trains operate late. Conversely, making every train an extra increases the complexity and train order paperwork because all meets between extras require train orders. A balanced mix works best.

Trains that tend to run predictably are good candidates for regular or scheduled trains. Trains that are less predictable or have unpredictable work along the way are good candidates for extra trains.

How long do the trains take to complete runs?

For a schedule, you will have to time your runs. But remember, on a typical model railroad working time along the way is much more important than running time between stations. While working time may vary depending on the cars to be handled, variable crew skill level can also be an issue. Use a conservative approach. Better to wait a few minutes on a schedule than be consistently late. Give the crews time to complete their runs and work without pressure. If the run time varies widely, run the train as an extra.

Do I change the operating sequence?

If your sequence is solid, you probably can continue to run trains in that same sequence albeit now with some trains operating on a schedule. The line-up of scheduled and extra trains should consider crew availability. Leave sufficient time between expected runs so crews are likely to be available and don't need to rush from the end of one job to the next job.

Where and when are the meets?

Operating crews can normally determine where they'll meet based on the schedule and the operating rules. The best way to graphically display this activ-

ity and to make sure scheduled trains are meeting at a siding is to use a string diagram (see Table 3). This graph is also helpful to ensure too many trains aren't scheduled into one area at the same time and crews can use the graph to "visualize" the schedule.

Do you need a fast clock?

My response is no. The CVL runs on one-to-one time. Yes, a "fast" clock adds to the overall impression of an operating session just as scenery and weathering rolling stock enhances a railroad. But a fast clock doesn't make things happen any faster! If 12 trains can operate across your railroad in three hours using a one-to-one clock, then only 12 trains can operate across the railroad in 12 hours using a 4:1 fast clock. Too often owners try to squeeze too much operation into an operating session, only to be made worse by adding a fast clock.

Do I need a dispatcher or operator?

Not necessarily. The CVL's operation is set up so that any train orders (for extra trains) and clearance Form As can be written in advance of the session. But adding a dispatcher definitely adds to the experience. A typical CVL session needs only three or four orders to establish the extra trains so having an operator to copy orders isn't needed.

How do crews communicate?

The overall footprint of the CVL is not large, so crews just walk up to the DS (if I have one) as necessary to OS passing a station or to pick-up orders. A larger railroad might find some type of communication system is necessary.

This walk-before-you-run approach has served the CVL well. I am fully convinced that the relatively smooth transition to TT&TO operations was aided by the fairly long period of running sessions solely on a sequence basis. Comfortable with both approaches, I am also

convinced that the prototypical footing of TT&TO based operations is clear and compelling. After all, that's what we are trying to do. As Whit Towers noted some 50 years ago:

"Since we are interested in prototypical equipment, most of us are also interested in how railroads conduct their operations. With a knowledge of these operations, we can develop simpler systems and procedures for operating model railroads realistically."²

Lastly, you can always regress back to a purely sequence-based operation. But give TT&TO a try. I think you'll like it! ←

Notes:

1. *Rail Group Condensed Code of Operating Rules*, 1951 edition. Available from Steve King, 18 Spinning Wheel Drive, Germantown, MD 20874 (\$20 postage paid).
2. *Model Railroader*, July 1961, pg 39, Whit Towers.

About the Author: A mostly retired executive search consultant, Roger lives in Potomac, Maryland with his wife Sue. His other interests include gardening and spending time in the "other" house in southern France.

Table 2: CLINCH VALLEY LINES • BLUEFIELD SUBDIVISION

CLINCH VALLEY LINES BLUEFIELD SUBDIVISION															
Eastward READ DOWN					Westward READ UP										
THIRD CLASS			FIRST CLASS		Miles from Big Stone Gap	Train Order Stations	Bluefield Subdivision TIME TABLE No. 10 August 1, 1959	Passing Siding Capacity (No. of Cars, Engines and Caboose)	FIRST CLASS		THIRD CLASS				
94	88	92	70	16					2	15	3	91	71	87	93
Second Coeburn Turn	Dante Sweeper East	First Coeburn Turn	Empty Hoppers	Norton MtE	Green Arrow			Norton MtE	Green Arrow	First Coeburn Turn	Loaded Hoppers	Dante Sweeper West	Second Coeburn Turn		
P.M.	P.M.	A.M.	A.M.	P.M.	A.M.			P.M.	P.M.	A.M.	A.M.	P.M.	P.M.		
.....	12.15	.....	11.00	.....	10.10	0.0	DN	BIG STONE GAP	Yard	.....	A 1.55	.....	A11.50	A12.07	.....
.....	12.16	.....	11.01	.....	10.11	1.1		WEST SWITCH		.....	1.53	.....	11.49	12.06	.....
.....	12.20	.....	11.02	.....	\$10.12	9.4	D	(East End Double Track) APPALACHIA	7	.....	\$ 1.52	.....	11.48	12.05	.....
.....	12.25	.....	11.04	1.15	\$10.14	21.2	D	NORTON		A 1.08	\$ 1.50	.....	11.46	12.01	.....
1.45	12.30	11.45	11.06	\$ 1.18	\$10.15	42.6	DN	COEBURN	12	\$ 1.06	1.44	A11.25	11.44	11.55	A 1.20
1.46	12.31	11.46	11.07	1.19	10.16	50.5		RAMSEY JCT.	12	1.04	1.43	11.24	11.43	11.51	1.22
.....	A12.32	.....	.....	.....	\$10.18	62.8		DANTE	6	.....	f 1.42	.....	.....	11.50	.....
.....	.....	.....	.....	.....	10.19	69.1		(West End Double Track) BLUEFIELD SWITCH		.....	1.41	.....	.....	.....	.....
.....	.....	.....	.....	.....	A10.20	70.0	DN	BLUEFIELD	Yard	.....	1.40	.....	.....	.....	.....
P.M.	P.M.	A.M.	A.M.	P.M.	A.M.					P.M.	P.M.	A.M.	A.M.	A.M.	P.M.

Passenger trains will not exceed 45 miles per hour.
Speed as shown in Special Instruction 5, and such other restrictions as may be in effect, will not be exceeded.
EASTWARD TRAINS ARE SUPERIOR TO WESTWARD TRAINS OF THE SAME CLASS
Except: No. 15 is superior to No. 16 and No. 87 is superior to No. 88

Table 3: CLINCH VALLEY LINES • BLUEFIELD & ANDOVER SUBDIVISIONS

S. King • August 13, 2010

