Lessons Learned?
from 20 years of "formal" operations

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Frame of reference for this clinic

formal operations means the date that the prototype traffic control system, Time Table & Train Order was adopted on the Durlin Branch

Employee Time-Table No. 1 effective June 1, 1997

Durlin Branch management has borrowed a lot of ideas from others in the hobby, so you may have heard some or a lot of this before
DURLIN BRANCH
D&RGW Narrow Gauge in On3

Freelanced Branch Line with scenes from the Rio Grande Fourth Division
2-8-0s, 2-8-2s and 4-6-0s; 30 ft. wooden freight cars and 40 ft. wooden passenger cars
1920s traffic operating patterns from the D&RGW Crested Butte, Ouray, Lake City branches and Durango-Alamosa mainline
Helper district based on Chama-Cumbres

An attempt to capture indoors the small steam engine, TT&TO and mountain operations experience
Model RR Operations

• Another aspect of the prototype to research
  • Can help answer those modeling project questions as well
• An enjoyable part of the hobby
  • Not as scary as it seems at first glance
    • Can be implemented / learned in phases
    • Improvement is an iterative process
  • Meet some really great people
• Low $ expense, but as much time as you care to invest
• Ops experience helps layout design
  • Experience can usually be gained on the other guy's RR!
• There are expectations (implicit/explicit) to be met by the layout host and visiting operators if an ops session is to be successful
An Operating Layout Host can expect:

- to learn something about the physical plant
- to learn different ways of "getting the job done"
- to receive constructive feedback
- to have fun
- to see the sessions get better over time

The Layout Host expects the crew to support the operating scheme.
Homework for the Host

✓ Reliable track work, rolling stock and electrical control system
✓ A method or methods of communication during the session
☐ A car forwarding system (which cars go to what destinations)
☐ A traffic plan or train line up (how cars get to their destinations)
☐ A traffic control method (moving trains safely)
✓ Appropriate documentation of the above three items for the crew
✓ The number of operating positions
✓ Crew Call
✓ A means to collect bad order reports

☐ These can be selectively modeled from your prototype
More homework for the Host

☑ Session Length
☑ Mail out of RR documentation prior to session
☑ Crew lounge area
☑ Food/beverages in layout room?
☑ Lunch break / other social time?
☑ Session Introduction & Crew assignment

HINT - Get experience as a guest crew member on other railroads
A Guest Crew Member can expect:

- to learn something new
- to help bring the railroad as envisioned by the Host to life
- to role play
- to be supported by the host and crew helpers
- to have fun
Homework for the Crew
OR what you bring to the session

- Basic knowledge of railroad operations
- Skill in controlling a model locomotive or train to mimic the real thing
- Basic understanding of “pre-session” materials that may have been provided by the host
- A desire to help the layout host achieve their operating vision for their empire
Common Sense and Courtesy is appreciated by Layout Hosts

**Do**
- show up on time
- ask for help if you are not sure
- your best to emulate prototype practices appropriate for the era
- observe and fit in with the tone of the session
- tell the host if you break something
- enjoy yourself
- thank the host when you leave

**Don't**
- show up uninvited
- bring a guest without asking the host
- leave early
- impose your favorite RR practices
- pick up or touch the models without the host's ok
- leave without making sure your pockets are empty of card cards, uncoupling pics, etc.

You Just Might Want to Get Invited Back!
Operating Session Cycle

Crew Arrival Window
Welcome and Briefing
Job Sign Ups
Ops start up
Railroading!
Ops wind down
Debrief

Host
RR set up &
Bad order repair
Crew Call
Crew RSVP
Feeling a little apprehensive?

- It’s natural and usually disappears once the session starts.
- Best ways to lower apprehension?
  - Be a student - study and learn operations
  - Practice - Operate every chance you can get!
  - Chase the mechanical and electrical gremlins out of the RR

Mistakes will be made
Good news - in model railroad ops, nobody really dies
How does a crew know what to do?

**Experience!**
(plus rule book, time-table & train orders)

**Train Procedures!**
(plus content of train wallet and TT&TO cheat sheet)
Train Procedures ï Durlin Branch

- Covers the trip from terminal to terminal
- Describes the activity or what is to be done at each point on the RR
- Does not describe how to do it
- Does not grant authority to occupy mainline
- Easy to carry
Ops aid - Train wallet (no known prototype)

Fits in hip, shirt or apron pockets. Uses one 8-1/2 x 11 inch card stock sheet.
1. Cut off ¼ in. of edge to create tabs

2. Fold up to form pocket

3. Fold tabs over folded pocket flap and glue

4. Fold lengthwise on center line

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8-1/2 x 11 inch card stock printed two sides
Train wallet in use. If this is dropped on the floor, no one gets excited (compared to the previous CRASH of clip boards used for paper work).

Now if something goes CRASH, the host knows there is something to be concerned with!
TT&TO cheat sheet

Front of page contains a logic flow for understanding what other trains your train needs to look out for.

Back of page contains info about other TT&TO rules and application on the Durlin Branch.

Thanks to Mark Amfahir and the Oct 2002 Dispatcher's Office for the front page.
Is it possible to:

- Learn TT&TO in one session?  
  ➢ No, TT&TO requires a lot more study & practice

- Get a flavor for TT&TO in one session?  
  ➢ Yes, with a good TT&TO mentor along

- “Fake it” through a TT&TO session?  
  ➢ The risk is screwing up the session for everyone else. Much better to ask questions

- Enjoy or have fun in a TT&TO session?  
  ➢ Absolutely!

- Include teenagers in TT&TO sessions?  
  ➢ You bet! They will probably learn and practice TT&TO better than some old heads
Is it possible to: (continued)

- Act as Host/Superintendent and Dispatcher in a TT&TO session?
  - Yes, if the layout is not too large or complex, is solid mechanically and electrically, and most of the crew is experienced.

- Run TT&TO without train order boards, phones or radios using voice across the room only?
  - Yes, if the crew keeps unnecessary chatter down. You do lose some of the "magic" when all hear the OS-ing and call out of "red board set at ..."

- Enjoy or have fun in a TT&TO session with voice across the room communications only?
  - Absolutely!

- Run a TT&TO session as smooth as is sometimes described in the magazines?
  - Once in a while it actually does work out like that. Other times...
School of hard knocks

Â Waited 6 years after the layout was designed and well along in construction and then decided to learn about TT&TO
  Â No useful space for a Station Operator position
  Â Crew can see station to station and operate under VFR

Â Spent time to add lots more rotary block switches to use DC, PFM and Soundtraxx Sound control in TT&TO ops rather than going to DCC at the time
  Â Changed to DCC in 2001 anyway (a great move for ops)
  Â In 2016 steam decoder sound quality did catch up

Â Failed to prove # Staging tracks needed = 2n+1 false

Â Learned a lot of time is spent creating/maintaining documentation for ops
  Â Letting documentation slip screws up sessions
  Â Needing to document gets this layout owner to think things through

Â Learned sound and animation are not gimmicks, but great stretchers of train crew time and activity in a session
School of hard knocks (continued)

Learned it is well worth the time, energy and cost of obtaining prototype and other Ops information

Danger - this can become a hobby within the hobby.
Some Recommendations

• Just get started.
• Take it slow - lives are not at stake, so don't burn out doing it all at once.
• Work on those aspects of operations that most interest you. Over time your knowledge and skills will evolve.
• Stay grounded in the prototype, and take your liberties from there. Gain a new appreciation of the railroaders on your favorite prototype.

Operate Early and Often!
Looking forward to many more years of operations

You should be too!