



North Raleigh Model Railroad Club

Standards and Recommended Practices

Show Operating Procedures — T-TRAK Layout

Standard

Issue 2

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Questions, comments, corrections and suggestions should be addressed to the NRMRC Standards Committee at dsd@pinehurst.net

Table of Contents

Introduction.....	Page 1
Logistics	2
Job Descriptions.....	2
Superintendent.....	2
Digital Master	2
Engineer.....	2
Setup.....	2
Setup Time.....	3
Members' Tasks During Setup.....	3
Show "Set-Up" Procedure.....	3
Skyboards.....	3
Protection of Modules	3
Operations.....	4
General Operations.....	4
Operating Rules for Engineers.....	4
Uni-Directional Running.....	4
Bi-Directional Running.....	4
Locomotives with Sound.....	4
Wallis Yard	4
Turnouts	4
Engineer's Attention	5
Class of Trains	5
Superior Direction	5
Tear Down.....	5
Motive Power & Rolling Stock	5
Electrical Control & Operation	6
Turnout Control	6
Miscellaneous.....	6
Show Operations Training Session.....	6
Children.....	6

Dress Code.....	6
Food and Drink.....	6
Member Activities During Show.....	6
Disputes.....	6
Security	7
Supplies for Emergency Use	7
Show Superintendent's Report	7
References.....	7
NRMRC Publications.....	7
Other Publications	7
Appendix A — Job Function Descriptions.....	8
Appendix B — Form 19 Train Order	19
Appendix C — Wallis Yard Operating Instructions.....	10

Introduction

This publication was authorized by the Standards Committee on April 6, 2016, and proposed to the general membership. It was ratified by the Club on April 6, 2016.

Shows have been a basic part of Club activities since its inception, for a number of reasons. Important goals are to reach the general public, to educate them about railroading and to help them become more aware of the hobby of model railroading. Our shows have attracted a lot of public attention wherever they have been held. Also, no Club activity has proven more successful at recruiting new members than the train show.

Shows afford Club members opportunities to display our work to the public and to collaborate on a group project. They offer a compelling deadline for finishing new modules and improving existing ones. Shows bring Club members together in a spirit of fellowship and instill a sense of pride and accomplishment.

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Shows provide major benefits for the Club, but they also entail a considerable amount of work and planning. The public is entitled to see trains run in an orderly, professional manner. They see the operators (Club personnel) as experts; thus the smooth and continual operation of the layout is necessary and required. The following operating procedures therefore are set with the public in mind and will be used for the Club's T-TRAK layout at each show. A companion document provides Show Operating Procedures for our NTRAK layouts.

Any corrections or suggestions for changes or improvements should be directed to the Chairman, Standards Committee, North Raleigh Model Railroad Club.

Logistics

Logistics essentially means the ability of the Club to transport modules and equipment, set up and tear down, and operate the layout committed to the organizers of the Train Show.

The Show Superintendent will be judge of the Club's capability to match needed resources for a successful show — manpower, transport capability and operating capability. The final layout size will result from this match.

Job Descriptions

A number of specific job functions must be carried out in order to manage and operate the layout successfully during a show. Several functions are defined. Specific requirements depend on several factors including layout size and complexity, number of members and guests participating in the show, and the operating scheme planned. While the layout could be operated with as few as two people (Engineers), operation would at best be nothing more than the same trains running around the main lines endlessly. See also detailed job descriptions in Appendix A.

Superintendent: In charge of all layout planning, logistics, setup and operation, train movements on mainlines and overall look of the layout to the public eye.

As warranted and at the discretion of the Club, an Assistant Superintendent may be appointed, who will assist the Superintendent, and assume the duties of the Superintendent during any absence or inability to fulfill his/her duties.

Should an Assistant Superintendent not be appointed, or not be present, the Chairman of the Standards Committee, then the Club President, in that order, will assume the duties of the Superintendent during any absence or inability of the Superintendent to fulfill his/her duties.

A Show Superintendent's Checklist is available as a separate document to assist the Superintendent to fulfill these functions.

Digital Master: In charge of all aspects of the digital design, setup and operation of the layout. The Digital Master is appointed by the Standards Committee. In performing these duties the Digital Master will follow the rules in the Club's Application Note (AppNote) "Digital Command Control for T-TRAK Layouts".

Engineer: Responsible for operating a train safely on the assigned track(s) at prototypical speeds, or as defined in any Form 19 orders, according to the operating rules specified herein.

The Superintendent can reassign functional responsibilities to meet the needs of current operating conditions.

Setup

Setup of the layout is key to a successful Show. Everyone must arrive on time and fully participate in the process, especially if setup time is short.

Transportation of modules, etc., is the responsibility of the owners. If the owner cannot provide transportation contact the Superintendent as soon as possible. Transportation of club-owned modules and other necessary equipment is to be arranged by the Superintendent.

Every module owner or designated person is to arrive on time for setup and bring the tools necessary to assemble the modules. Each module or unit is positioned in accordance with the map provided by the Superintendent. Everyone is expected to help unload and set up, and remain until the layout is completely assembled, or work is officially stopped. If a person must leave early, make the Superintendent aware of it (upon arrival).

Modules must be in place no later than one hour before the doors are opened to the public, or insertion may be refused.

Space in the layout for a module or module unit is made by the Superintendent according to the following guidelines. Only fully scenicked and certified modules are chosen in this order:

- 1) Guest-owned modules
- 2) Member-owned modules
- 3) Club-owned modules

Note: club-owned modules necessary for successful configuration of the layout (for example, Wallis Yard, Apex Diorama complex and corners) will always be included.

The Superintendent has the final decision as to which modules are accepted or rejected.

On occasion, an unscenicked, partially scenicked or non-certified module may be allowed in the layout. The minimum criteria for such acceptance are full electrical operation of the tracks.

Setup Time

The Superintendent will advise all members of the date and time to collect modules and other material from storage, and the date, time and place for start of setup at the show location, as well as any other necessary information regarding events on setup day.

Members' Tasks During Setup

Members' first task on arrival at a Train Show is to find the Show Superintendent and check-in. Even if you don't have a module, check in. There are always club corners, the yard and other modules needing a "foster parent" for show set-up.

When you check in you should find out where your module(s) will go, and the location of the anchor point — the first module put in place from which the layout is built in two directions. With this information, move your module to the correct spot, and set the module to the specified height.

Owners of "module sets" set them to the correct height, join them together and make any electrical connections cannot be reached from behind the modules,

Any removable details on modules can be added as time allows.

Show "Set-Up" Procedure

The following procedure will be followed to ensure set-up is accomplished in a timely and successful manner. This procedure requires all modules be on site at the start of set up, and that all Club members, even those without modules, be available to assist. The Superintendent may vary this procedure at his discretion; his Superintendent's Checklist will have additional details.

- Pre-plan the layout and configuration of modules based on the allotted space.
- Place the Club's 30" x 6' banquet tables in position within the allocated floor space, configured for the planned layout, and place the table curtains on each table.
- Set one corner of the layout in place (usually the corner adjacent to Wallis Yard) to anchor the layout.
- Level the modules at the correct height (3½") using the Height Gauge.
- Set up modules and place in position sequentially per the diagram, starting from the anchor end. Each module owner is responsible for his/her own module(s), aided by other members, especially those without modules of their own (see previous section).
- Set up the DCC Command Station/Booster and make the initial connections to the Red and Yellow tracks. Then work your way around the layout plugging in Track Bus and Track Bus Feeder cables.

- Place a LED tester across the rails in one track near the location where the Booster powers the track. Any polarity error in plugging up the cables will result in the LED going out and the Booster entering a short circuit condition.
- Plug up Junction Module Track Bus Feeder cables last. Depending on the junction module configuration in the layout any given track could be Red or Yellow. When everything else is connected correctly, plug in the junction modules while carefully watching the LED tester.
- Connect the Accessory Bus and Accessory Bus Feeder cables to those modules requiring Accessory Bus power, and connect the Accessory Bus to the 15VAC supply.
- The Digital Master completes the DCC installation at the Command Station by adding the laptop computer running JMRI, the USB-to-LocoNet interface and the router for WiThrottle operation. He/she then fully tests the system.
- Clean the track on each module, using acceptable methods such as a Bright Boy, a sock wetted with isopropyl alcohol and/or suitable wet and/or dry track cleaning cars.
- If used, set stanchions in place and run protective rope around the layout.
- Once installed power up the control system(s) and check for correct operation throughout the layout. Correct any faults.
- Operate test locomotives over all tracks and correct any faults.
- Place buildings and other scenery or local operation items on the modules.
- Attach NRMRC T-TRAK signs to the layout.

Skyboards

Many T-TRAK modules have skyboards, most of which are detachable. The Superintendent will advise show participants whether or not skyboards will be used on modules in the layout.

Protection of Modules

Modules must be handled with care during transportation and setup to ensure they are not damaged, especially items installed on the surface of the module such as track, buildings and other scenic accents, or electrical components, turnout machines and linkages, etc., on the bottom of the module.

- Carefully unpack module end plates and secure the fasteners, being sure that modules do not get damaged when loose.
- Stand the module(s) up and adjust the leveling screws to the correct height (3½") using the Height Gauge.

Once modules are setup, no material of any kind is to be transported or handed across the top of the module. This includes boxes of equipment, toolboxes, food, drink, etc., since they may slip and fall onto the module. No boxes of any kind, food, drink, etc. may be placed on a module at any time.

Operations

Once the layout is fully operational Engineers may then place trains on the track and begin running trains.

When local conditions at a Train Show dictate a modification to these procedures, a Form 19 Train Order (see Appendix B), detailing all modifications, will be issued to all Members and guests present.

General Operations

The intent of operating trains at a Show is to make it appear that a railroad is in operation. This requires variety, which means not letting the same trains be operated for a prolonged period. The following procedures are based on this premise:

- Change trains frequently, but not too frequently. Move a train out of the yard and onto the main line, run it around several loops or for a specific amount of time, at prototypical speeds, then send it back to the yard and replace it with another one. The Superintendent, will decide the length of time each train will spend on the layout before being returned to the yard.
- Conduct as many local operations as possible on modules so equipped. Make use of industrial spurs, passing sidings, branch lines, freight yards, passenger stations and engine terminals. This not only adds to the action, but can compensate for a slowdown on the main lines due to derailments and moving long trains to and from the yard.
- The T-TRAK main lines (Red and Yellow tracks) are to be operated as main lines. The preferred direction for the main lines is right hand running (outer main (red) goes counter-clockwise, inner main (yellow) goes clockwise). Wrong main running is permissible only for detours, moving a train from one track to another, moving trains to and from the yard, and when bi-directional running is in effect unless otherwise authorized by the Superintendent.

Note: With DCC power multiple trains can be run on each track. Trains should be similar types with similar speeds. A fast passenger train should not be run on the same track as a coal drag.

- From time to time passenger trains are to be stopped for 30 to 60 seconds at passenger stations. If the station has a passing siding, trains can be swapped. Thus, a train can pull out almost as soon as the incoming train arrives.

- Train length and makeup should be reasonably realistic. Mainline freights should have freight or dual-purpose power, and be limited to about 30 cars (preferably 20 to 25 cars). Passenger trains should be pulled by passenger or dual-purpose power, and be limited to 12 cars (preferably 8 to 10 cars, although some trains should be limited to the length of station tracks). Extra-long trains have a habit of derailing. Any trains in excess of 30 freight cars or 12 passenger cars require authorization of the Superintendent. The caboose, if used, should be the same road name as the engine; exceptions are permitted when consistent with prototypical practice.

Note: A proper end car *must* accompany all trains. No end car indicates a break-away. End cars include the following: caboose, observation car, freight car equipped with a FRED, brake van, etc. When an unusual end car is placed on the end of a train, the Engineer shall provide details of the end car to other Engineers before departing Wallis Yard.

Operating Rules for Engineers

The following operating rules apply to engineers operating on the North Raleigh Railroad and other layouts in which the NRMRC participates.

Uni-Directional Running The engineer of the following train is responsible for avoiding rear end collisions with the train in front (just like driving a car). Since sometimes an engineer cannot see the rear of his/her train (e.g. around a corner of the layout) this places the responsibility for avoiding a rear end collision on the next following engineer in case of a stop or a breakaway in the preceding train.

Bi-Directional Running When bi-directional operation is permitted an engineer must ensure the track to the next siding is clear before leaving the previous siding. When two trains are ready to proceed onto the same section of track then priority is based on Class of train or superior direction. The responsibility to avoid a rear end collision also applies.

Locomotives with Sound Engineers running trains with sound-equipped locomotives should sound the whistle/horn and bell according to prototype practices at level crossings, when starting, stopping, etc.

Wallis Yard An engineer desiring to enter into or depart from Wallis Yard must ensure the way is clear and inform other engineers of his/her planned movement. When two trains are involved priority goes to Class of train or superior direction of travel. See Section "Class of Trains."

Wallis Yard operating instructions are provided in Appendix C.

Turnouts Engineers of trains are responsible for ensuring turnouts in front of their train are aligned correctly for the desired

route and turnouts behind their train are re-aligned to the normal position. This applies to both manual and electrical (pushbutton or DCC throttle) operated turnouts.

Engineer's Attention If an engineer's attention is diverted from operating the train (such as talking to the public) he/she is to immediately notify other engineers of his/her intent to stop his/her train and then stop the train until the diversion ends. Alternately the engineer hands his/her throttle to another engineer to take control of the train.

Class of Trains

The following is the Class of Train superiority that is used on the North Raleigh Railroad, listed in descending order.

- Passenger Trains
- Local Passenger Trains
- Intermodal Freight Trains
- Unit Freight Trains
- General Merchandise Trains
- Local Freight Trains

Superior Direction

Unless otherwise specified by the Superintendent, clockwise is the superior direction on the North Raleigh Railroad. This rule applies even when a train changes from the superior to the inferior direction. For example, a train traveling in the superior direction crosses onto a track where it is running in the inferior direction. This train becomes inferior to a train of the same class running in the superior direction.

Tear Down

The Superintendent will advise the time for start of tear down of the layout. No person can pull his module out ahead of time and leave without serious disruption to the layout operation. Advance warning and planning is required. The layout must not be torn down while other exhibits are still open.

Everyone is expected to stay until all modules are disassembled. Corners and club-owned equipment are the responsibility of everyone. When we are all loaded and ready to go, we all leave together. If you must leave early tell the Superintendent upon arrival that day.

The space occupied by the layout should be left clean, and any garbage placed in appropriate receptacles.

Motive Power and Rolling Stock

Since showmanship is the key to success at a show, if a specific train or piece of rolling stock or motive power gives problems with derailments, breakaways, etc., it will be removed from the track or layout.

The Superintendent and Assistant Superintendent have the authority to remove trains or individual cars or locomotives that don't operate reliably when running on the layout. In general the rule of "twos" will apply:

- Two derailments
- Two uncouplings

Rolling stock, locomotives or trains so removed will not be returned until the malfunction has been remedied and tested, and approved for return by the Superintendent or Assistant Superintendent. Major cosmetic flaws in rolling stock or locomotives are also cause for removal from the layout.

Only those locomotives meeting the requirements specified in the Club publication "**Equipment Standards and Procedures**," or otherwise approved by the Superintendent, may be used during the time the show is open to the public.

Note: High quality rolling stock and locomotives are common in N Scale. Much of this equipment was expensive to purchase, is somewhat fragile and is very valuable. Most are no longer available, except possibly through auction at extremely inflated prices. *Extreme care must be taken in the handling of Members' equipment following derailments, collisions and break-aways, and in the yard during handling of equipment.* Refer to the guidelines for "Train Show Etiquette" and "Railroad Courtesy" for further suggestions.

The use of expensive locomotives and rolling stock should be avoided on layouts where stanchions/ropes are not present around the layout perimeter.

All maintenance and testing must be done on a test track or yard track, not in public view on the main lines or branch line.

All locomotives and rolling stock must be identified with a color code painted on the underframe of each, or by a personal decal bearing the name of the owner. The code, consisting of one to three dots or stripes, is used to identify ownership of the rolling stock when it has been intermixed on the layout. The color codes are registered with the Club Secretary and are defined on the Membership Roster.

All set-up and teardown of trains must be done in the yard area, not on the main lines, if at all possible, unless otherwise specified by the Superintendent.

Packing/unpacking of rolling stock/trains is not to be done on the yard; equipment must be transported to/from the yard on trays. Boxes used for the transportation of trains by Members must be kept under the modules or on tables, not in walking space.

No Club member may have more than one train on the layout (main lines and yard) at one time unless approved by the Superintendent.

Electrical Control and Operation

The North Raleigh Model Railroad Club utilizes 100% Digital Command Control. Analog locomotives may not be operated on club layouts. It is the intent that the electrical control of Show layouts be reliable and continuous. The Club standard for DCC is the Digitrax Digital Command Control System.

Some T-TRAK modules require a DCC signal on the tracks for accessory decoder operation and cannot be used in an analog environment.

Turnout Control

More and more turnouts on modules are being equipped with electric turnout machines controlled by pushbuttons and/or DCC throttles and/or software. Module owners must advise the Superintendent and operators of the type of turnout control on their module(s) and provide operating instructions. If the module(s) requires a DCC signal for train operation or turnout/route control, this signal can be obtained from the layout DCC system or from a Command Station/Booster provided by the module owner, as directed by the Show Superintendent.

Miscellaneous

Show Operations Training Session

All members must participate in and pass an operations training session and be familiar with these Show Operating Procedures before operating trains on a club layout at a train show. This is required once upon joining the Club.

Children

The Club encourages Members to involve their children in the hobby of model railroading. In order to avoid conflict with the objectives of a Train Show, however, the following rules apply:

Parents are directly responsible for their children's behavior at all times, both within and outside the Show layout. When inside the layout, young children of Club Members not running trains must be provided with gainful activities to keep them occupied at all times, and they must be kept away from areas used by Members who are operating the layout.

Children under 12 are not permitted to operate trains at any time on the Show layout or any individual module in the Show layout, unless and until they have passed a Youth Basic Operations Training session. They may not sign up for any of the operating functions on the Show roster.

Children 12 to 18 must be under direct adult supervision (parent or other adult Member) when performing layout related functions. The Show Superintendent may modify the age limitations as appropriate based on the demonstrated maturity of the individual child.

When outside the layout, children who are not operating a train must remain outside any protective ropes around the layout; other children do not know these are member's children and think that they too should be allowed inside the ropes. Children of members should avoid chasing trains.

Dress Code

While there is no formal dress code for Club members at Shows, it is recommended that official Club shirts and caps be worn by Members during show times. Otherwise, Members should dress as the public sees a railroader — blue jeans, vest, railroad hat, rail scarf, etc. Remember to always wear your Club name badge or a shirt with your name embroidered on it. A Club name badge can be obtained from the Club Secretary.

Food and Drink

Permitted outside the layout only. Keep food and drink away from the trains and off the modules. Food and drink waste should be placed in appropriate receptacles or garbage bags, as soon as consumption is complete. *No food or drink is to be placed on any module or on tables containing electronic control equipment.*

Member Activities During Show

Since T-TRAK layout can be viewed by spectators on all sides Club members participating in the show must obey the following guidelines:

- Do not place chairs around the 4 sides of the layout in a manner that prevents the public from viewing all side and modules of the layout, unless approved by the Superintendent.
- Seating for members should be alongside the wall or way from the layout at least 6ft from the layout
- Activities not directly related to the operation of the layout should be located at least 6ft from the layout and should not draw attention away from the layout.

Disputes

Any disputes between members must be settled quietly with the public eye in mind. No arguments! Both parties walk away and resolve all issues later or at the next Club meeting. For disputes involving operations or operational issues the Superintendent is the final authority.

Security

For protection of the layout and equipment from the public, whenever possible stanchions with a rope will be used to circle the layout at a distance of at least two feet from the layout. Equipment and rolling stock should not be left on the layout overnight or whenever the layout is unattended.

For layouts where stanchions and ropes cannot be used due to restricted space members present at the layout should be continuously vigilant to ensure trains are not stolen or damaged and modules are not damaged by members of the public.

During setup and tear down all boxes, modules and other club and member equipment should be secured, especially if the public has access to the layout space. At least one member should be present at all times unless uniformed security forces are present.

Supplies for Emergency Use

From time to time, modules and/or track and/or wiring will receive damage which must be repaired before the layout can be used in a Show. The following constitutes a minimum list of the supplies to be kept on hand to deal with any damage:

- Package of Kato UniJoiners (Kato)
- Package of Kato Insulated UniJoiners (Kato
- Various Kato Unitrack straight sections, in pairs
- 10 ft, 12 Ga. zip wire
- Powerpole Connectors — 2 red (Anderson 1327), 2 black (1327G6) and 4 contacts (1331)
- Flashlight/Magnifying Glass/First Aid Kit
- Normal model railroading tools, such as pliers, wire cutter, wire stripper, soldering iron and solder, screwdrivers, Bright Boy track cleaner, glue, etc.

Show Superintendent's Report

The Superintendent will provide a written report on the show, either electronically on the Club's email list or at the next Club meeting. It should cover highlights of the show, operational

issues, specific recommendations and any other comments that can be used to enhance the success of future shows.

References

North Raleigh Model Railroad Club Publications

- Digital Master's Checklist
- Equipment Standards and Procedures
- Locomotives for Use at Shows
- Module Certification and Grading
- Module Standards and Recommended Practices
- Various T-TRAK – related Application Notes (AppNote)
- Railroad Courtesy
- Show Superintendent's Checklist
- Train Show Etiquette

Other Publications

- Niagara Orleans Model Engineers (NOME) Club Standards, NTRAK Data Sheet #3.1.
- "Mall Show Guidelines," NTRAK Magazine, Sept/Oct 1985, Page 28.
- "NTRAK Train Operations," NTRAK Magazine, Nov/Dec 1985, Page 30.
- "Public Show Operations on a Modular Layout," NMRA Bulletin, May 1984, Page 33.
- "The Modular Way," by Jim FitzGerald, N-Scale Magazine, May/June 1997.

Appendix A — Job Function Descriptions

Show Superintendent (The “Boss”)

Following are the functions of the **Show Superintendent**.

General

- In charge of all layout planning, set up and operation, train movements on main lines and overall look of the layout to the public eye.

Planning the Show

- Advise Members of date and times for start of set up, the Show, and start of tear down.
- Arrange transportation of Club-owned modules.
- Coordinate visiting modules.
- Prepare configuration (map) of the Show layout.

Show Set Up

- Final decision as to which modules are included/excluded in the layout, using the following guidelines:
- Only fully scenicked modules are chosen in this order:
 - Guest-owned modules
 - Member-owned modules
 - Club-owned modules (except those necessary for operation of the layout)
- Change configuration (map) of Show layout in real time in response to changing conditions.

Show Operations

- Ensure Members and guests do not hold the same operator functions during consecutive time slots.
- Final authority for resolving any disputes.
- Assign job functions when insufficient Members and/or guests have signed assignment sheet or any have not showed up for their assignment.
- Decide on cars/locomotives/trains to be removed from the layout for non-reliable operation — rule of "twos."

Tear Down

- Arrange transportation/storage of Club-owned modules.
- Look after any material (modules, parts, trains, etc.) left behind by Members, and attempt to return to owner.

Report

- Prepare a written report on the Show, including highlights, operational issues, recommendations for future Shows, and any other comments, for transmission electronically on the Club's email list or at the next Club meeting.

Digital Master

Following are the functions of the **Digital Master**.

- Fully responsible for and final authority for all aspects of digital design, setup and operation of the layout.
- Ensures sufficient DCC equipment on hand to control and power the layout, including a spare Command Station.
- Ensures Command Station reset to default parameters then to standard settings at the start of the show and each day prior to start of operations.
- Inspects visiting modules for compliance with digital wiring specifications.
- Ensures Coin Test successfully carried out on all tracks in all power districts.
- Coordinates LocoNet ID/Duplex Group Name setting with other layouts so there is no inter-layout interference.

Engineer

Following are the functions of the **Engineer**.

- Operates according to Operating Rules for Engineers
- Operates a train on the assigned track at speeds defined as prototypical elsewhere in this publication, or as defined in any Form 19 Train Orders.
- Ensures the rule of "right-hand running" is followed on the Red and Yellow tracks, except as directed by the Superintendent and/or any Form 19 Orders.

Red track:	Counter-clockwise
Yellow track:	Clockwise

- Follows the progress of multiple trains on the assigned track to ensure safe operation and spacing.

Safe spacing of multiple trains on the same track and prevention of rear-end collisions are the responsibility of the engineer.

- Stops passenger trains at stations from time to time.
- Ensures all trains are started and stopped smoothly, and any speed changes made smoothly, so as to not cause derailments or breakaways.
- When operating sound-equipped locomotives blows the whistle/horn and rings the bell in a prototypical manner for starting/stopping, grade crossings, etc.
- Watches all passing trains for problems or potential problems. Advises train Engineer as appropriate.

Appendix B — Form 19 Train Order

	North Raleigh Model Railroad Club	Form 19
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Train Order No. _____ Date: _____

To: NRMRC Operating Crews	Subject: XXXXTrain Show Raleigh, NC Month, Days, Year Operational Instructions
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The following changes to the normal Show Operating Procedures are being made to improve operations at this Show. The aim is to keep trains running continuously and reliably.

<p><u>General Instructions for Use of Form 19</u></p> <p>Form 19 is to be used by the Show Superintendent to communicate to Members and others operating the layout at a Train Show any changes to the Show Operating Procedures necessary due to local conditions at the Show, to indicate special events such as Card Order Operation or DCC operation, or for any other reason where additional information and/or instructions must be provided.</p> <p>Members and others operating the layout at a Train Show should check from time-to-time to see if a Form 19 Order has been issued, read it and follow the instructions in the Order.</p>	<p>The normal arrangement of a Form 19 Order is for each employee (Member) needing the information to have his/her own copy. This can normally only be done if all the contents are known before the Show starts (access to printers, copiers, etc.) A hand-written Form 19 is acceptable for use at the Show as necessary. The single copy should be posted in a conspicuous place where all Members and others operating the layout can read it. A suggested spot is the tower supporting the Club's electric signs; alternately the Dispatcher's position is suggested.</p> <p>Only the Show Superintendent or Assistant Superintendent is authorized to issue a Form 19.</p>
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EACH EMPLOYEE MUST HAVE A COPY OF THIS ORDER.

Made: _____ Time: _____ Authorized: _____

Superintendent

Appendix E — John M Wallis Yard Operating Instructions



Track Plan for John M Wallis Yard showing red (outer) tracks and yellow (inner) tracks
Lowest track for each color is the mainline.



Track Plan for John M Wallis Yard showing Crossover turnouts at each end.

Description

John M Wallis Yard is a T-TRAK Parallel Yard. Some facts about the yard:

Modules

Wallis Yard consists of five (5) double-wide modules, the equivalent of ten (10) single modules, or about 10 feet long. The modules are labeled as follows, and must be configured in the order stated below from left to right.

1. **Left Throat** This contains the turnouts necessary for access to the yard tracks at the left end of the yard.

There are four #6 Unitrack turnouts wired through and controlled by a Digitrax DS64 Stationary Decoder which receives its DCC signal and power from the red track. The turnouts can be controlled either manually or by DCC. DCC addresses are marked on the module beside the turnouts.

In addition to normal Unitrack track pieces the module includes one of the expander tracks, and two specially cut-to-length tracks.

The main (red and yellow) tracks traverse the throats and the entire yard using only the straight path through one turnout at each end of the yard.

2. **Left Yard.** This module contains both main tracks and two yard tracks per main track, for a total of six tracks.

All tracks are identical except for the left end of the rear yellow yard track. The left end section of track is a curved section necessary to connect to the left throat module. It is loosely mounted so it can be moved slightly to ease connecting to the left throat module.

3. **Center Yard** This module contains both main tracks and two yard tracks per main track, for a total of six tracks. All six tracks run straight through the module.
4. **Right Yard** This is the mirror image of the Left Yard module.
5. **Right Throat** This is the mirror image of the Left Throat. The descriptions for the Left Throat apply here.

The two throat module bases were constructed by Joe Peacock. The three, yard module bases are those recovered from the Timesaver configuration, and were built by Dave Thompson.

Power

There are Track Power Feeds to both Throat modules and to the Center Yard Module; all three modules **MUST** be connected to the Track Bus(es) for proper operation. The Left and Right Yard modules will receive power from the adjacent modules.

The DS64 units are connected to and receive their power and DCC signal from the Red Track.

Power feeds to individual tracks are a combination of Terminal UniJoiners, Unitrack 20-041 Feeder Tracks and direct soldering to the rails.

The Red and Yellow sidings on the Yard modules are each protected by a VoltScooter electronic circuit breaker so that momentary shorts caused when locomotives and rolling stock with metal wheelsets are being placed on the track will not affect overall layout operations.

DCC Programming Track

A track that can be used for DCC locomotive programming has been installed to the rear of the T-TRAK tracks on the Left Throat module. A toggle switch for selecting between Programming Track

and normal Track Power is located just in front of the programming track. Connections are Powerpole connectors mounted to the front of the module.

Note the Club does not normally provide DCC programming capability at T-TRAK shows. If you want/need to program, please let the Show Superintendent know prior to the show so the proper equipment can be brought. **The layout Command Station cannot be used for programming.**

Since the programming track is located to the rear of the operating tracks on the Left Throat module care must be taken when using the programming track to not interfere in any manner with trains on the operating tracks.

Connecting/Disconnecting the 5 Modules

There are five modules to be connected together, all with 6 tracks at the interface. With 6 tracks to be connected considerable force is necessary, both to connect and disconnect. Do the following:

- Take extra care in leveling the modules at the correct 3-1/2" height.
- Place the two modules being connected together and then be sure all the UniJoiners line up, both vertically and horizontally. It is possible, just like NTRAK joiner tracks, to get a joiner under the rail yet the rails snap together.
- Add the remaining yard modules one at a time in the same manner.
- When taking the modules apart you **MUST** use something, such as a putty knife, to pry the modules apart carefully. With 6 tracks they hold tight.

Crossovers

The effectiveness of Wallis Yard can be significantly enhanced by locating double crossovers between Red and Yellow tracks near each end of the yard, as shown in the diagram above. The Club owns two sets of double crossovers for this purpose.

Operating Rules

The following rules to use of the yard during train shows:

1. The Red and Yellow Main tracks are to be kept clear at all times during the show so trains can operate through the yard unhindered. Exception: the first train of the day may be set up on the main tracks, and the last train of the day may be taken down on the main tracks.

Operators of trains on the Red and Yellow mainlines should operate their trains at a speed consistent with the amount of activity in the yard, and pay particular attention to the correct alignment of the mainline turnouts.

2. Red Yard Tracks 1 and 2, and Yellow Yard Tracks 1 and 2 are intended for the setting up and taking down of trains.

- Trains that have been made up on these tracks should proceed on their runs on the Red and Yellow Main Tracks as soon as possible after makeup is complete. In no case should this take place more than 5 minutes after make-up is complete.
- Trains that have completed their runs and operated into the yard tracks should be removed from the track within 5 minutes.
- Parking of trains on Red Yard Tracks 1 and 2 and Yellow Yard Tracks 1 and 2 is permitted for a maximum of 10 minutes to allow the operator to take a comfort break. Trains must not be parked on the Red and Yellow Main Tracks. The Operator of parked trains should advise the Show Superintendent that the train is parked, and for what purpose and period of time.

Shorter trains may also be parked on passing sidings on other modules such as Green River and Kimball with the same 10 minute time restriction.

Parking for longer periods of time may be allowed at the discretion of the Show Superintendent.

The Show Superintendent may impose additional operating rules or modify the above rules at his/her discretion.