

THE OPS SESSION

Each ops session covers a 24 hour period on a fast clock set at a rate of 6:1 (24 hours in 4 hours). The sessions start at midnight and continue until midnight the following day. The following paragraphs describe the roles and responsibilities of operators during each session.

Dispatcher

The dispatcher is responsible for routing all trains and scheduling train meets during each ops session. Dispatchers work 12 hour shifts (2 real hours). There are 2 shifts per session. The Dispatcher's console displays a schematic of the layout. The panel is laid out with the East to the right and West to the left (this is reverse orientation from the Yardmaster's console). Red LEDs show occupied blocks on the railroad. Green and



amber LEDs designate turnout positions. On the mainline, green indicates the turnout is in the normal position, amber indicates the turnout is in the reversed position. In staging areas, all turnout positions are indicated by amber LEDs that show train routes in each staging yard. The Dispatcher controls mainline turnouts by pushing momentary toggle switches on the console for the corresponding turnout.

Turnout control in each staging yard is achieved by dialing up the selected route on a rotary dial for each yard and pressing a momentary push button to activate each route. The routes are preprogrammed and are controlled by the DCC computer.

Power conservation is also the responsibility of the Dispatcher. Each staging yard track has a power cutoff switch. While trains are parked on a staging track, track power is turned off. Prior to a train departing the staging yard or shortly after arriving in the staging yard, the Dispatcher will cut off power to the staging track. Toggle switch position also serves as an occupancy indicator. When a staging track is occupied, the toggle switch for that track is in the off or down position. When a staging track is unoccupied, the track power is on and the toggle switch is in the up position. These visual aides can assist the Dispatcher when routing trains into each staging yard.

The Dispatcher has a number of tools to assist in tracking train movements. Magnetic markers track train movements on the Dispatcher's console. The Dispatcher also has a log in which the Dispatcher records the time each train passes specific towns on during

their run. Finally, train routing graphics provide a visual aid when routing multiple trains during each session.

When a train requests to enter the mainline, the Dispatcher will power up the assigned staging track (if applicable), set the assigned route on the mainline and authorize the train to enter the mainline when it is clear. Dispatchers control the distance a train is authorized to travel before a mandatory stop. The Dispatcher issues a train order verbally to each engineer. The train order identifies the train number, that the train is clear to proceed or must hold, and if clear, how far the clearance to proceed is good for. Here is an example:



Engineer: "Train 200 to Dispatch"

Dispatcher: "Go Ahead 200"

Engineer: "Train 200 is ready to depart Harrisburg Track E2"

The Dispatcher powers up Track E2 and aligns the turnouts so Train 200 can depart the staging yard and is properly routed on the mainline.

Dispatcher: "Roger 200, you are cleared to depart Harrisburg Track E2 and proceed to Sheppardsfield. Hold short of Switch 20 and advise dispatch, over."

Engineer: "Roger Dispatch. Copy Train 200 cleared to depart E2 through Sheppardsfield. Hold short of switch 20 and advise dispatch. Train 200 out."

When trains are scheduled to arrive in Nickel City Yard, the Dispatcher shall advise the Engineer to contact the Yardmaster on the Yard Channel after departing their last cleared position on the mainline but prior to arriving at the yard.

The Dispatcher should exercise the following priority when routing trains on the mainline:

Eastbound trains are superior to Westbound trains

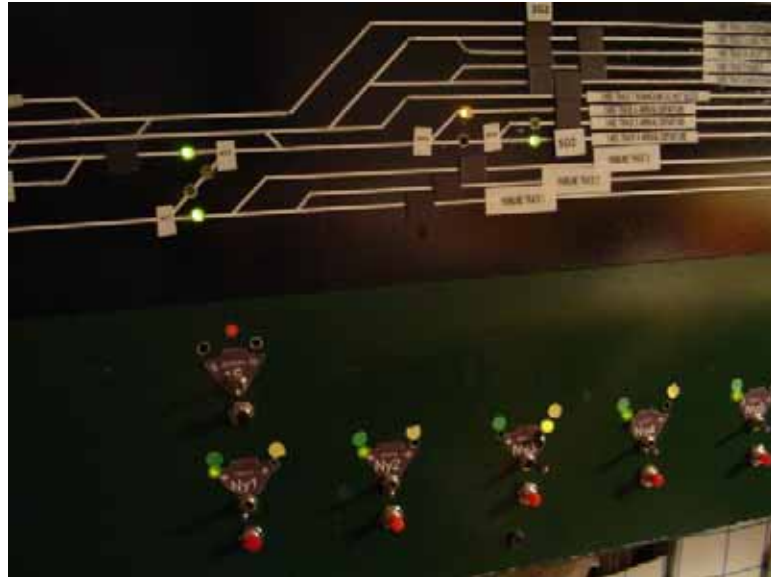
- 1st Priority – Long distance passenger trains
- 2nd Priority – Commuter trains
- 3rd Priority – Through trains (freight, coal, ore, intermodal, etc)
- 4th Priority – All other trains (freight, coal, ore, intermodal, etc)
- 5th Priority – Local or Way Freight trains

Dispatchers communicate with train crews on the assigned Road radio channel.

Yardmaster

The Yardmaster maintains overall control of Nickel City Yard. All staging yards are considered part of the mainline and are controlled by the Dispatcher. Yardmasters work 12 hours shifts (2 real hours). There are 2 shifts per session.

The Yardmaster's console displays a schematic of Nickel City Yard. The console is laid out as the yard is seen from the Yardmaster's side of the layout with East to the left and West to the right (this is the reverse orientation of the Dispatcher's console). Green and amber LEDs designate turnout positions. On the turnouts serving the arrival and departure tracks, green indicates the turnout is in the normal position, amber indicates the turnout is in the reversed position. The Yardmaster controls mainline turnouts by pushing momentary toggle switches on the console for the corresponding turnout. The yard locomotive crew manually controls turnouts serving yard tracks 8 through 12. The Yardmaster also controls signals at each entrance and exit to Nickel City Yard.



The Yardmaster controls mainline turnouts by pushing momentary toggle switches on the console for the corresponding turnout. The yard locomotive crew manually controls turnouts serving yard tracks 8 through 12. The Yardmaster also controls signals at each entrance and exit to Nickel City Yard.

The Yardmaster authorizes trains to enter and depart the main yard; controls the main yard turnouts in order to route arriving and departing trains into and out of the yard; coordinates yard engine movements of freight cars with the yard locomotive crew; assigns departure tracks for departing train consists; authorizes locomotives to enter and exit the main yard when traveling to and from the locomotive yard; and coordinates all departing and arriving train movements with the Dispatcher; controls signals at each entrance and exit to the yard. Yardmasters communicate with the yard locomotive crew and all trains in the yard on the Yard radio channel.

The Yardmaster uses magnetic markers track train locations on the Yardmaster's console. When trains are parked on any arrival, departure or storage tracks, a magnetic marker with the Train's number is placed over the occupied track.

When a train requests to enter the mainline, the Yardmaster sets the assigned departure route in the yard and contacts the Dispatcher to see if the mainline is clear. If the Dispatcher clears the train to enter the mainline the Yardmaster will authorize the train to

depart the yard; set the appropriate signal to green; and contact the Dispatcher on the Road Channel. Here is an example:

Engineer: "Train 301 to Yardmaster"

Yardmaster: "Go Ahead 301"

Engineer: "Train 301 is ready to depart the yard on Track 5."

The Yardmaster contacts the Dispatcher to get mainline clearance. If clearance is obtained, the Yardmaster aligns the turnouts and sets the departure signal to green so Train 301 can depart the yard.

Yardmaster: "Roger 301, you are cleared to depart Track 5. Contact the Dispatch on Channel C upon departure."

Engineer: "Roger Yardmaster, copy Train 301 cleared to depart Track 5 and contact Dispatch on Channel C. Train 301 out."

When trains are scheduled to arrive in Nickel City Yard, the Dispatcher shall contact the Yardmaster to see if clearance to enter the yard is available prior to clearing a train to proceed to the Yard. If clearance is obtained the Dispatcher will advise the Engineer to contact the Yardmaster on the Yard Channel after departing their last cleared position on the mainline but prior to arriving at the yard. The Yardmaster will align the appropriate turnouts and set the entrance signal to green.

The Yardmaster shall keep arrival and departure tracks clear as much as possible. Yard crews are recommended to pull entire consists of arriving trains off arrival tracks to the breakdown track. Cars will be switched out there and the consist should be pulled back onto the departure track. It is recommended that arriving locomotives are directed to the locomotive yard where they can wait on the layover track until their consist is ready for departure.

Hostler

The Hostler's job is multi-faceted. First, the Hostler maintains the Locomotive Yard. This includes preparing locomotives for departure by retrieving the requested locomotive(s) from their storage track(s), placing them in the proper facing direction, MUing them, and routing them to the locomotive yard to be handed over to the Train crew at the Crew Yard Office.

Second, the Hostler retrieves locomotives arriving into the Locomotive Yard at the Crew Yard Office. Locomotives are turned, refueled, serviced and washed, then stored on the appropriate storage track, which is powered off.

Third, the Hostler programs all DCC throttles for all train crews whether the train is in the Locomotive Yard, on the mainline or in a staging yard. The Hostler refers to the

Hostler Power Desk Assignment sheet which lists each locomotive and its associated DCC address as to which train it is assigned to. Appendix D provides a sample Hostler Power Desk Assignment Sheet.

Fourth, the Hostler operates the lighting controls for the layout. The Hostler raises and lowers the track lighting and activates the blue lights in accordance with the time of day.

Finally, the Hostler monitors the Operations Call Sheet and calls train crews at their scheduled times. The Hostler assures that train crews sign in; are provided their assigned switch lists and throttles; sign out after completing their assignment; and throttles are de-selected from the DCC system.

Hostler duties are divided into two hour shifts, two shifts per session.

Traffic Manager / Road Manager

The Traffic Manager / Road Manager (TM/RM) is the traffic cop for the railroad. The TM/RM keeps the railroad moving. The TM/RM responds to problems reported by train crews; assesses each situation; takes necessary corrective action; has authority to reroute trains over issued orders by the Dispatcher; and places track work in and out of service. In addition, the TM/RM can provide advice to train crews in order to assist crews in completing their assignments when requested. The job of the TM/RM can be 2 or 4 hours in length.

Yard Locomotive Engineer

The Yard Locomotive Engineer operates the Yard Locomotive. The Engineer works with the assigned Brakemen to switch railcars in the yard and make up and break down trains arriving in the yard. The crew works as a team spotting cars and routing turnouts. The Engineer and train crew operate on the Yard Radio Channel. They coordinate movements with the Yardmaster and request routing of power turnouts controlled by the Yardmaster.

Slow speeds are to be maintained within the yard. The Engineer shall avoid sudden stops and starts and operate the locomotive in a prototypical manner. The Engineer is expected to follow all rules listed in Appendix F. If the locomotive is sound equipped, the Engineer shall follow all rules applicable to sound locomotives in addition to the general rules listed in Appendix G.



The Yard Locomotive Engineer and Brakeman duties are divided into two hours shifts, two shifts per session. Yard crews must return the yard locomotive to crew change tower inside the yard.

Freight Engineer (Fast and Through)(Freight, Coal, Intermodal)

Freight Engineers operate mainline trains originating in staging yards or in Nickel City Yard. Engineers obtain their assignments, throttle and switch lists from the Hostler. A sample switch list is provided in Appendix E. Engineers operating trains originating in staging yards shall contact the Dispatcher on the Road radio channel at their scheduled departure time and advise they are ready to depart and request power to their staging track. They shall also inform the dispatcher of their train type and final destination. Upon authorization, Engineers operate their trains along the mainline to points approved by the Dispatcher. Upon arrival at designated points, the Engineer shall announce their arrival and await further orders. Engineers shall operate their trains in a prototypical manner and avoiding sudden starts and stops. Upon arriving at their final destination, Engineers shall advise the Dispatcher. If arriving in a staging yard, the Engineer shall advise the Dispatcher of the train's arrival and request the staging track power be turned off.



Engineers operating trains originating in Nickel City Yard shall obtain their locomotive(s) from the Hostler and coordinate train movements through the Yard with the Yardmaster and Yard Crew. When ready to depart with their train consist from the yard, the Engineer shall request permission from the Yardmaster to depart. The Engineer shall follow the directions of the Yardmaster. Upon leaving the yard, the Engineer shall switch over to the Road Channel and inform the

Dispatcher of their train number, location, train type and final destination. The Engineer shall then follow the directions of the Dispatcher as described in the preceding paragraph.

Engineers operating on the mainline shall report to the Dispatcher when they clear the following towns:

Nickel City, Sheppardsfield, Laurel Valley, Mills River, Underwood, Canova, and Monserrat.

Engineers are expected to maintain prototypical speeds while operating on the mainline and slow speeds when in designated yards. Engineers shall avoid sudden stops and starts and operate the locomotive in a prototypical manner. Engineers are expected to follow all rules listed in Appendix F. If the locomotive is sound equipped, Engineers shall follow all rules applicable to sound locomotives in addition to the general rules listed in Appendix G.

Local Freight Engineer (Wayfreight)

Local or Wayfreight Engineers operate local trains that switch out rail cars at every industry assigned to their route. These trains are the most inferior of all classes of trains and must yield the right of way to all other trains on the railroad.

Engineers obtain their assignments, throttle and switch lists from the Hostler. A sample switch list is provided in Appendix E. Engineers operating trains originating in local town yards shall contact the Dispatcher at their scheduled departure time and advise they are ready to depart. They shall also inform the dispatcher of their train type and final destination. Upon authorization, Engineers operate their trains along the mainline to points approved by the Dispatcher. Upon arrival at designated



points, the Engineer shall announce their arrival and await further orders. When switching cars that involve use of the mainline turnouts, the Engineer shall request permission to unlock designated turnouts in order to perform local switching maneuvers. Upon gaining permission, the Engineer or Brakeman shall position the turnout power switch from NORMAL to the LOCAL setting. This releases control of the turnout from the Dispatcher and routes it to the local fascia panel. Local train crews have a limited amount of time to complete train maneuvers and return control of turnouts back to the Dispatcher. When returning control to the Dispatcher, a train crew member will return the turnout power toggle switch to the NORMAL position and advise the Dispatcher that turnout control has been returned to the Dispatch panel. Upon arriving at their final destination, Engineers shall advise the Dispatcher. Engineers shall operate their trains in a prototypical manner and avoiding sudden starts and stops.

Engineers operating trains originating in Nickel City Yard shall obtain their locomotive(s) from the Hostler and coordinate train movements through the Yard with the Yardmaster and Yard Crew. When ready to depart with their train consist from the yard, the Engineer shall request permission from the Yardmaster to depart. The Engineer shall follow the directions of the Yardmaster. Upon leaving the yard, the Engineer shall switch over to the Road Channel and inform the Dispatcher of their train number, location, train type and final destination. The Engineer shall then follow the directions of the Dispatcher as described in the preceding paragraph.

Engineers operating on the mainline shall report to the Dispatcher when they clear the following towns:

Nickel City, Sheppardsfield, Laurel Valley, Mills River, Underwood, Canova, and Monserrat.

Engineers are expected to maintain prototypical speeds while operating on the mainline and slow speeds when in designated yards. Engineers shall avoid sudden stops and starts and operate the locomotive in a prototypical manner. Engineers are expected to follow all rules listed in Appendix F. If the locomotive is sound equipped, Engineers shall follow all rules applicable to sound locomotives in addition to the general rules listed in Appendix G.

Passenger Train Engineer (Commuter and Long Distance)

Passenger trains are similar to the Freight Engineer except that each passenger train has a list of designated stations to stop at. Each switch list also provides the minimum number of minutes a passenger train must remain stopped at a train station. A sample switch list is provided in Appendix E. Passenger train engineers are expected to announce to the Dispatcher their arrival and departure from each train station.

Passenger Train Engineers operate mainline trains originating in staging yards. Engineers obtain their assignments, throttle and switch lists from the Hostler. Engineers contact the Dispatcher at their scheduled departure time and advise they are ready to depart and request power to their staging track. They shall also inform the dispatcher of their train type and final destination. Upon authorization, Engineers operate their trains along the mainline to points approved by the Dispatcher. Upon arrival at designated points, the Engineer shall announce their arrival and await further orders. Engineers shall operate their trains in a prototypical manner and avoiding sudden starts and stops. Upon arriving at their final destination, Engineers shall advise the Dispatcher. When arriving in a staging yard, the Engineer shall advise the Dispatcher of the train's arrival and request the staging track power be turned off.

Engineers operating on the mainline shall report to the Dispatcher when they clear the following towns:

Nickel City, Sheppardsfield, Laurel Valley, Mills River, Underwood, Canova, and Monserrat.

Engineers are expected to maintain prototypical speeds while operating on the mainline and slow speeds when in designated yards. Engineers shall avoid sudden stops and starts and operate the locomotive in a prototypical manner. Engineers are expected to follow all rules listed in Appendix F. If the locomotive is sound equipped, Engineers shall follow all rules applicable to sound locomotives in addition to the general rules listed in Appendix G.

Brakeman

The Brakeman is responsible for throwing all turnouts under local control; uncoupling and coupling rail cars; and ensuring that all cars on the switch list are accounted for. The Brakeman communicates with the Engineer and



coordinates train movements so that the train can complete its assigned tasks in the least amount of time and without delaying other mainline trains.