Alberta Free-Mo
21st Annual Meet
August 15-18, Big Valley, Alberta

Proudly Presented By

Participant Guidelines

Event Information

Venue: Big Valley Agriplex, Big Valley, AB
Event Dates: 2024 August 15 through 18
Rail Height and Skirting: For this meet the rail height will be 42", skirting is optional

Operator Fees:

Full Operator: $100.00 for the whole meet.

Guest Operator: $20.00, a limit of 3 consecutive hours, one session only, between 9:00 – 15:00 Saturday or Sunday. We may limit the number of guests on the setup at any one time to ensure access for full operators.

DCC Electrical Requirements

Calgary Free-mo will provide the Digitrax command station to operate the layout.
We will also provide two radio towers, each consisting of a UR91 Simplex Radio Receiver (DT400R Throttles) and a UR93 Duplex Radio Receiver. All UR93 receivers must have the latest software updates installed, and will be reset to the same Network ID as the host UR93. We will have a computer and the firmware files on hand if you have not upgraded these items.
No UR92s will be allowed on the setup as we have found they do not play well with the UR93s.
DT402D throttles will work with the UR93 if they have the latest firmware update. Most UT4D throttles also work. There is no firmware update for them. Calgary Free-mo will also provide several LNRPs.
Review of large setup Electrical Architecture with a few of the US Free-mo groups that have had large layouts has given us a different approach to what is required. Additional LNRPs (with power supply) provided by participants will definitely help provide a more robust Communication Network. Additional UR93 radio receivers and Additional boosters (with power supply) to power booster districts will be welcomed (and required, can never have too much power) to improve operation. Calgary Free-mo does not provide any Wi-Fi connections. Digitrax LNWI units supplied by participants can be connected to the network. We will also allow a Wi-Fi Router if anyone wants to bring one.

Each operator must provide his/her own Digitrax throttle. There will be no spare throttles available.

- Operators are expected to know how to use their throttles without assistance.
- It is possible that wireless operation will be unreliable or unavailable due to interference. Operators should be prepared to use their throttles plugged in to Loconet.

Meet Schedule

ALL module owners MUST honor the schedule to ensure punctual set-up, operation, and tear-down of the layout. Module owners are expected to participate in the complete event. Module owners MUST be present to set-up their own modules and are expected to assist setting up other modules. Module drop-offs or loans will be avoided unless absolutely necessary.

Set Up Timetable

This Setup timetable must be honoured by ALL Module Owners and Full Participants without modules, to ensure punctual set-up of the layout.
Arrival deadline for Module Owners, Modules and Full Participants is Thursday, Aug. 15, at 10:00 am.

Wednesday August 14th

16:00-

Pre-set-up: Arena Preparation will be conducted before any modules are brought in. Modules may be unloaded but not unpacked. NO set-up will be conducted.

Thursday August 15th

8:00-10:00

- On arrival report to the Registration Table, which will be near the loading door entrance on the East Side (back) of the building. You will be directed when to unload and where to put your modules.
- **Crew Assignment:** Everyone will be assigned to a setup crew. (You can state a preference on your registration form. Please specify Chief or Crew)
  1. **Module Connection and Levelling Chief**
     - responsible for final positioning of the modules and the proper alignment of the track and installation of fitter rails.
     - minimum 4 crew members on this team, 2 will be assigned to fitter rail installation.

Fitter Rails

To speed setup, every module will have insulated rail joiners installed on the ends; thus you must ensure that your end-of-module ties are sufficiently undercut on ***both ends*** to accept an Atlas insulated rail joiner. This applies only to the Free-mo ends of multi-section modules. You are responsible for any internal connections between module sections. Each Subdivision Setup Crew will be provided with a fitter rail measurement jig and a supply of rails and joiners. In case we run out, please have your own fitter rails available.

2. **Electrical Chief**
   - ensures the placement of boosters, and all electrical and communication connections to the modules are in accordance with the electrical setup plan.
   - confirms that all booster districts, accessory bus districts, throttle-net districts, and auto-reverse districts are properly isolated from each other.
   - minimum 2 crew members on this team.
3. **Signal Chief**
   - A few people with signal district setup experience will be tasked to do so as the electrical work in the signalled district is completed.

Signalled Sections

We use Signalogic System equipment which is compatible with MSS V1.
If your module has this capability, AND you can be there on Wednesday Evening, please indicate so on your registration form and we will try to include you in this section. Any groups that have a signalled section that they wish to provide as a unit to the setup, please advise Doug Soeder directly. using the Alberta.Free-mo@calgaryfreemo.ca email address. He will work on the order and orientations of the modules provided that would be suitable for both the signalling operations and the overall layout plan.

Thursday, August 15

8:00 – All night

The setup will be divided into districts, with each district having a Levelling Chief and crew, and an Electrical Chief and crew. We will try to put you in the crew that is assigned to the area that contains your module. Refrain from putting any rolling stock or locomotives on the layout during setup. Skirting and accessories will not be added until the Run Chief has declared the layout ready to use.

14:00 Status update and Operating Rules Review

We will take a break to go over the operating rules for this setup.

17:00 Supper Break

Calgary Free-mo sponsored BBQ.

18:00 Onward

Shake-down and running trains

Friday, August 16

9:00-18:00	**Controlled Operations -** register start time with Duty Run Chief
18:00-21:00	**Free Running**
21:00-	**Long Train Running** (please wait until the traffic dwindles or 22:00 to operate long trains.)

Saturday, August 17

9:00-18:00	**Controlled Operations -** Guest operators may be operating between 9:00 – 15:00
18:00-19:00	**Pot Luck Dinner**
19:00-21:00	**Free Running**
21:00-	**Long Train Running** (please wait until the traffic dwindles or 22:00 to operate long trains.)

Sunday, August 18

8:00-16:30	**Controlled Operation** – Guest operators may be operating between 9:00 – 15:00
16:30-	**Tear-down**

All of us have to travel, it is expected that everyone help until everyone is loaded up. Those who intend to 'drive-all-night' will be forgiven for departing early.

Module Compliance

Modules will be selected on an invitational basis; based on the level of completion, compliance to standards and the available space. We will try to fit in as many qualifying modules as possible, though it is possible that every module may not be utilized due individual sizes and shapes, and the limitations of the available layout space. Please be aware that the layout plans may continue to change until shortly before the set-up date, due to unforeseen events.

We encourage you to use the following as a checklist as you prepare for this event:

Module body

- End plates are smooth, flat, and square to the rail ends in all dimensions
- Legs provide stand-alone stability (except for Mini-mos and Signal-mos)
- Legs are adjustable to allow floor-to-railhead height of 41 to 43 inches
- Skirting is optional, but desirable

Track

- Track conforms to Free-mo specifications and operates reliably for all railroad equipment types
- Track does not dip or rise up at the module ends
- Track does not twist relative to the end plate at the module ends
- Rail is firmly secured at the module ends
- **Adequate room is provided between rails and ties for both metal and insulated rail joiners**
- There are no troublesome track dips or rises within the module
- All segments of the track, including turnouts, are powered by feeders from the track bus
- All track passes inspection with the NMRA Mark IV gauge
- Rails aligned perfectly at all butt joints within the module
- Rail heads are clean of paint and accumulated dirt

Electrical

- Electrical wiring and electronics conform to Free-mo specifications, and are all in good working order. The recent change of Free-mo Standards requires the use of Anderson Power Poles for interconnecting track and accessory busses. The additional DCC Common buss will not be used in this setup: Calgary Free-mo will provide the DCC Common attached to the BoosterNet Cables.
- Turnout controls and Loconet throttle panels are located on both sides of the module
- Connectors for Loconet are located at each module end
- Connectors for track power and accessory power are located at each module end
- All cables have been tested for continuity

Scenery (preferred but not required)

- Scenery is plausible, believable, and realistic
- Scenery is complete with ground cover, foliage, and details
- Scenery covers all plywood, foam, plaster, etc.
- Scenery and all details adjacent to and between the rails is below rail height
- If scenery is incomplete, the top of the module must be covered so that nothing can fall off the tracks and through the module.

Each module must be accompanied by

- 2 clamps for mating to the adjacent module
- Tools (as required) to adjust leg height
- Fitter Rails and Joiners: will be provided by Calgary Free-mo. Please ensure that the rail ends will allow the easy attachment of Atlas metal and insulated rail joiners. We will be putting insulated joiners between every module. The internal connection of multi-piece modules is the owner's responsibility.
- Loconet jumper cable (24" long), or pigtail with coupler
- Track Bus and Accessory Bus connectors
- Modules with two track busses must supply a 2-to-1 converter for one end to be used if required.

Train Equipment Requirements

Reliable locomotives and rolling stock will minimize derailments, break-aparts, and other mishaps. Equipment causing problems will be removed from the layout and identified as "bad order" equipment.

It is recommended that you mark your equipment for easy identification
Any road name is acceptable
Any era is acceptable
Inspect and test all equipment

- Metal wheels only – plastic wheels will not be allowed on the layout
- Wheels are in gauge (HO Standard gauge)
- Wheels are clean and free of track treatments
- Axles spin freely in the trucks
- RP-25 wheel profile – 0.110 or 0.088 treads
- Trucks rotate freely
- Trucks rock side-to-side and front-to-back in a three-point mounting
- Metal KADEE couplers are strongly recommended
- Couplers adjusted to proper height
- Couplers are properly centered and spring-back to centre position
- Coupler trip pin adjusted to proper height, or removed
- Cars are weighted in compliance with NMRA standards

Locomotive specifics

- DCC only – no analogue locomotive will be allowed on the layout
- Analogue Conversion must be disabled
- Address set to 4 digits – no locomotive using 03 as its address
- All DCC programming to be done prior to the event
- Sound volume to be set at a moderate level
- A separate programming track may be available, but not guaranteed

Prototypical train consists are required

- No steam locomotive pulling a container train
- No strings of old rolling stock pulled by a modern diesel
- A caboose at the end of a prototypical train should match the road name should match the pulling locomotive

Operating Procedures

During scheduled run sessions, you may run trains by;

- Watching ahead for other trains
- Operating at reasonable speeds
- Running only one train at a time
- Verbally coordinating with other Operators to handle meets with other trains
- Use the provided "Pink Cadillac" Operating Permission cards through single track sections and junctions when not being controlled by Tower Operators
- Re-aligning turnouts to the mainline after your train has passed (Single to Double Transitions do not need to be re-aligned)
- Avoiding talking to others or taking photos/videos that block railroad operations

General Guidelines

All Operators must be vigilant regarding the layout, locomotives, rolling stock, and other property. Report concerns to the The Duty Run Chief.

- Keep eyes and ears open for inappropriate behaviour, and act as needed to protect modules, trains, and other property
- Remove trains and throttles from the layout when you are not scheduled to operate, otherwise, other Operators have permission to move your train
- Break up consists and dispatch locomotives when pulling them off the layout
- Avoid placing excessive numbers of locomotives and rolling stock on the layout, causing congestion
- Clean your module's rails with an abrasive block and/or isopropyl alcohol at least daily
- Do not clean another owner's module without first obtaining permission to do so
- Keep your locomotive wheels clean
- If you identify a locomotive or car to be "bad ordered," attempt to locate the owner to advise him/her of the problem. If it is your equipment, remove the offending piece from the train, so as not to cause any extensive delays.
- Trains should be limited to a reasonable overall length, to fit within a passing siding
- Trains must be set out and removed from the layout to a staging table. These will be at locations where setup may occur. While operating, put your boxes or containers under the tables so that the surface of the tables can be used by those setting up or removing trains.
- Respect property owned by others
- Report any accidental damage to the module owner, train owner, and/or Duty Run Chief
- **AND ABOVE ALL, HAVE FUN!**