

Highball!

OFFICIAL PUBLICATION 6TH DIVISION PNR

March 2016



What is the Speed of Your Layout? : Rupert James of Regina has built a unique layout. It not only displays some very fine modelling, but also a rather unusual method of running the train on the layout. See more in his article on page 7. (photo by Rupert James)

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Superintendent's Report - Ed Molenkamp, Superintendent 6th Division

The 6th Division Fall Meet is being planned to be held in Edmonton in conjunction with the Greater Edmonton Train Show, September 17 & 18.

Details will be released as they are finalized.

Hope to see you at one of the upcoming events in the Division.

From the Editor – Rob Badmington

Two or three weeks before I release each issue of Highball! I send out a reminder email to a long list of Area Reporters and potential contributors, hoping that I will receive enough interesting material to fill a few pages. So far, I have never been disappointed. There is always something going on in the Division and we are fortunate that there are many modellers willing to take a few minutes to type out some notes about happenings in their areas.

Even more satisfying for me is when someone takes the time and trouble to send in a complete write-up of some model railroad activity or project that they are passionate about. In this issue, there are three such articles, complete with photos. Thanks to Rupert, Peter, and Cal for their contributions.

As you can see from the back page of Highball!, a multitude of events are coming up in the Division. I hope everyone can attend at least some of these activities, as the organizers always put a lot of effort into making these enjoyable and worthwhile. Sending Highball! a photo or two along with a brief description of your experience at one of these events would be much appreciated by your fellow division members.

I was very pleased to see that our Regional publication, *The Switchlist*, is again being published, after an almost five year absence. It can be accessed on the web at <http://pnr.nmra.org/switchlist/>. Thanks to Editor Greg Kujawa of Bozeman MT for volunteering to take on the challenge.

Convention Report– Rob Badmington

The PNR Regional Convention in Salmon Arm BC is only about three months away and if you haven't made plans to attend yet, now is a good time to sign up. Convention Chairman David Walker has sent some updated information:

The early registration ended on January 31, 2016 but the event is still a great deal for all those who want to attend. The registration form is still online for your convenience.

The host hotel is the Prestige Harbourfront Resort in Salmon Arm, the initial block is fully

subscribed. There are suites available so contact the hotel at 250-833-5800 for rates. Information on additional accommodation is being sent out and will be updated on the web site. There was a typo on the Best Western rate and it should be \$129.99 plus taxes.

A ladies tour is scheduled for Saturday June 18 which is a bus tour that is entitled No Tracks No Trains, an excursion around the region. More information is on the Web site. We are working on other possible events for the first two days of the conference.

The clinic program is starting to come together and some of the clinics confirmed to date include Time Table & Train Order Operation - Rene Gourley; A Hands On Construction Project - Lori Sebelley; 45 Years of Amtrak - Paul Hobbs; Working With Strathmore - Mike Chandler; Basic Electrical Concepts and Layout Wiring for Model Railroaders - Jack Hamilton; How I Built My Portable Switching Layout - Martin Lapp; West Coast Logging Railroads - Then and Now - Tony Lee; and Basics of Decoder Pro & Why You Want To Use It - Greg Madsen. Self-guided layout tours in the region will be confirmed soon.

Check out the contest on the web site and build the Crossing Shanty from Interaction Hobbies. The intent of the contest is to Kitbash the shanty

Achievement Program Report – Doug Wingfield, MMR #484, 6th Division, PNR AP Chair

I have been associated in this wonderful hobby for a long time. I won't tell you the number of years but it is a LOT!

Not often enough there is a photograph that comes along and you say to yourself, 'Self, I think you should build that structure, car, locomotive or scene'. I was inspired this week while scanning slides from over 40 years ago of this wonderful service station in Waldo, BC a few miles west of Fernie. It used to be there but it was flooded when the Libby Dam was completed in the early 1970's. See photo attached. I would love to see

into any other type of building except the shanty. If you have any questions e-mail the contests coordinator noted on the contacts page of the web site.

The Banquet on Saturday evening will include popular guest speaker Tom Price who will entertain us with a talk on "The Race for the Boundary."

The registration form is on the website. Should you want a hard copy of the form, contact the registrar through the contacts page or e-mail at registrar@selkirkexpress2016.ca.

Visit the website at www.SelkirkExpress2016.ca. Looking forward to seeing everyone in June 2016.



Salmon Arm, British Columbia
June 15th – 19th, 2016

a kit designed and manufactured of this building and associated parts such as the old truck parked out front (in another photo). It has a railroad connection in that the Great Northern went by there on their way from Eureka, MT to Fernie. The line was abandoned in the 1930's. The tunnel on Highway 3 west of Fernie was originally used by the Great Northern.

I am available on email at any time for advice or encouragement to get the job done.

Have a good modeling spring and we will talk at you in the next issue.



McGinnis's Garage in Waldo BC would make a great model. (Photo by Doug Wingfield)

Area Reports

Edmonton – Mark Johnson

The MMRF Spring Swap Meet is coming up on Saturday, March 19 from 9AM-Noon, at the Central Lion's Senior Citizens Recreation Centre (11113 113 St.). SWAP Meet organizer, Ric Francoeur, tells me that the vendor tables have sold out! This time, there will be 50 individual vendors on 78 tables - a buyer's dream! More details at www.mmrf.ab.ca

Plans are underway for the Greater Edmonton Model Train Show (GETS), to be held September 17 & 18, from 10:00 to 5:00 each day at Millennium Place in Sherwood Park. The MMRF is experimenting with Facebook and Kijiji for publicizing its events. I'd be interested in hearing ideas or experiences from other groups on successful methods of raising awareness of upcoming events. There's always at least one person who says "I never heard a thing!"

The Edmonton Model Railroad Association (EMRA) is installing computer-controlled turnout motors to support automated train operation during the display season when Fort Edmonton is open. When we welcome visitors into the layout room, we sometimes lose track of the trains running loops on the layout, so automatic control will be very useful!

Under the leadership of Peter Ulvestad, who is an active participant in the JMRI team, the EMRA installed controls for the first two turnouts this month. The RR-CirKits TC-64 provides both input and output to the computer through the Digitrax Loconet. Peter has set up the control so that the computer does not need to be running for the local control toggles to throw the turnouts. Slick!

Calgary – Rob Badmington

I hope this issue of Highball! reaches you before the Calgary Prototype Modellers Meet takes place on March 11 & 12. The Meet will begin on Friday evening with a "Make & Take" session on weathering with Roger Walker MMR. Pre-registration for this session will be required by contacting Dave Audley at 403-275-1869 or daudley@telusplanet.net . On Saturday, the regular Proto Meet will take place starting at 09:00 with Show and Tell displays, and clinics including "Kadee Coupler Up-date" by John Wrinch; "CPR's European Adventure" by Doug Phillips; "NAR Photo Collection" by Bob Hadlow; and "CPR Snow Ploughs" by Tom Price. Everyone is welcome to attend the Meet.

On the same weekend, the annual Calgary Model Trainmen Flea Market runs from 08:30 to 10:30, followed by the CMRS Spring Mini-meet, all at the Glenmore Inn. Roger Walker has a great line-up of clinics covering many aspects of model railroading. This Model Railroad Weekend in Calgary has evolved into a must-attend event. By my count there are at least 11 clinics being presented on the weekend.

Olds-Didsbury– Rick Astle

Greetings fellow model railroaders and welcome to 2016. The Mountain View Model Railroad Club sponsored another Olds Model Train, Hobby and Craft Show February 6th and 7th at the FGH Gymnasium at Olds College. This year the show attracted several layouts from N scale to Garden Railway and all were hits with young and old alike. The show's success is all due to the high level of participation and enthusiasm from model railroaders and railroad enthusiasts in Alberta. We set a new high attendance mark and planning is already underway for 2017.

CMRS held its Layout Tours in late February with 12 different layouts open for viewing. The weather was perfect for travelling around so attendance was high. We saw layouts in almost every scale ranging from Z to O, and in varying stages of completion from only benchwork and track, to very realistically scened. You can always learn a lot from every layout you visit.

SUPERTRAIN 2016 is only a few weeks away, with a record number of layouts and exhibits lined up. Mark your calendars for April 16 and 17, 2016.



Richard Johnson's layout was one of the many open for viewing on the CMRS Layout Tours. Nice photo backdrop. (photo by Rob Badmington)

Take a look at my YouTube video at <http://www.youtube.com/watch?v=UDoLA21xOUM> to get a sense of the atmosphere.

When in Didsbury stop by the museum during open hours Tuesday through Friday 9:00am to 4:30pm and on Saturdays from 1:00 to 4:00pm. The layout can be operated from the viewing area by a push button. The layout can operate in both DC and DCC modes; however, the DCC operation is only available when a club member is in attendance. We look forward to sharing our journey, vision and some of the history of the Didsbury area with you.

Airdrie – Greg Orme

There's nothing like the sharp crisp morning air of a warmer than usual Family Day to start the season at Iron Horse Park operated by the Alberta Model Engineering Society. Feb 15th saw clear sunny skies and temperatures in the mid-teens when the gates opened at 11 am for the 8th annual Family Day Frostbite Run. By the end of the day at 3pm when the gates closed, 844 riders enjoyed a day filled with train rides, hot chocolate and smiling faces.



This year will mark the 18th year that AMES has been operating Iron Horse Park now located in the center of Airdrie. It wasn't always in the

Regina – Doug Johnson

Over the holidays I built 7 structures for our On30 modular layout. That sounds impressive but 6 of them were outhouses. Can't have enough outhouses on an old west layout.

Lethbridge – Tony Lee

The winter modelling is progressing well at Southern Alberta Model Railway Club (SAMRC) with an open house scheduled for March 19-20, 2016, 10-4 each day.

Work is progressing on several fronts such as our signaling project, scenery and card system for operating the HO layout.

By the time you read this our expansion to the building will be out for bids from the general contractors, with bids closing around March 15, 2016. Then Lethbridge City Council has to approve the bids and construction is slated to start around June 15 with completion to be

center of town when the first shovel of dirt was turned to start the construction of the 11 acre 1/8th scale model railway. On a site formerly used as a dumping ground for old construction material the dream started, being the construction of a miniature railway depicting travel on the Canadian Pacific Railway from Airdrie through to Vancouver and return.

The members and volunteers of AMES are looking forward to their annual opening day on the Sunday of the May long weekend. Construction is well under way of an additional one km of track to be added to the already existing 1.6 km and completion of the first leg of that project should be completed hopefully by the end of September. There is always something to do at the club so if you would like to help us continue to build that dream or just want to get involved we are always looking for volunteers and new members. So come see us at this year's SuperTrain or come out to the park. Our hours of operation and further info can be found on our Web site. www.ironhorsepark.net

The Moose Jaw Thunder Creek Model Railroad Club will be holding their annual show on March 19 and 20 at the Western Development Museum in Moose Jaw.

before Sept. 30, 2016. After the contractors have left, then club members will complete the interior painting, cabinet work in our new enlarged workroom and start planning for the HO and N scale layout expansion. Committees have already been struck to look at how the layouts may be expanded in our new space. In addition, our meeting areas will be greatly expanded to accommodate approximately 40 members as at present the club has 33 members. Our club is taking our N scale layout to Salmon Arm in June for the PNR convention. To date there are 7-8 members planning on attending the meet.

What is the Speed of Your Layout? – Rupert James

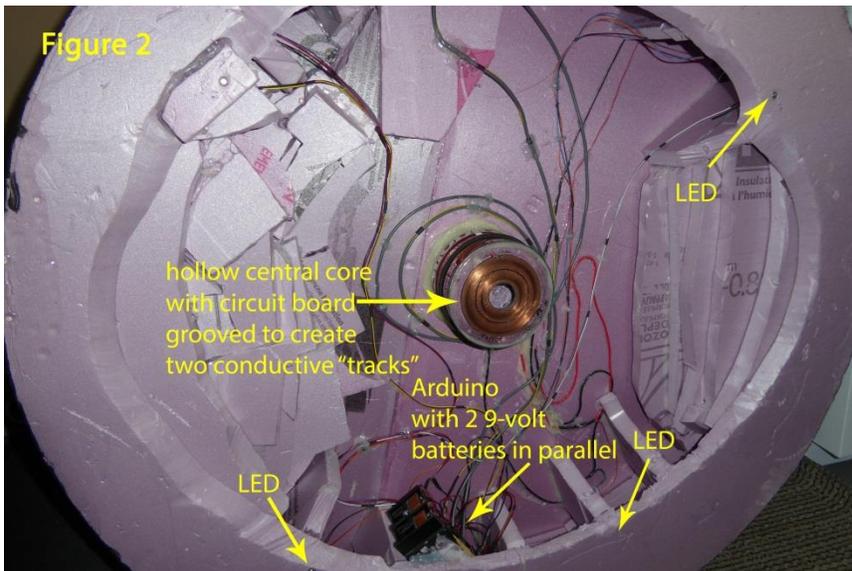
In model railroading articles there are occasional comments about the scale speed of models and people's perceptions of what best portrays the prototype. When operating my most recent layout the speed of the train is not the issue as much as the speed of the layout itself. Huh?

My goals for this layout: HO scale, transportable in a compact SUV, light weight, quick setup and take down, viewing height suitable for all ages, capable of continuous running at train shows and, finally, relatively cheap components so if I hit a dead end there wouldn't be much pain upon throwing it out. Did I achieve my goals? You be the judge...

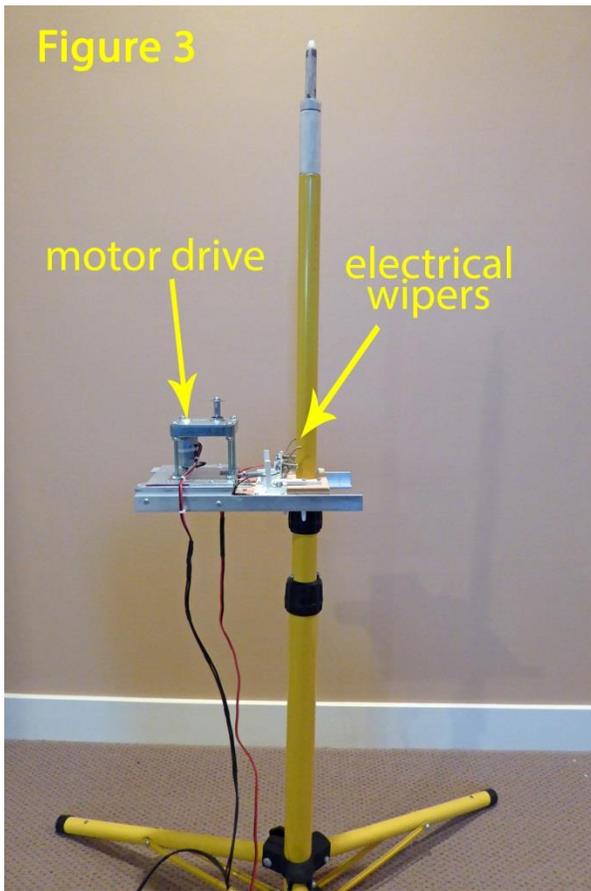
The layout is a circular contraption approximately 1 m in diameter and 60 cm high with a central mountain around which there is a circle of HO code 83 Micro Engineering track. The track traverses two wood trestles, one of which spans a small creek and the other a gorge which is home to an aspen grove. There is a pond, a waterfall and a handful of people, animals and assorted railway debris occupying the scenery (Figure 1- front cover).

When operating, the train runs at a constant speed and the layout moves at exactly the same speed but in the opposite direction – causing the train to remain in place and always within sight of the viewer. It will do this for hours on end. It is analogous to walking on a treadmill. I thought this approach would be more interesting at shows than a train running around a stationary circular layout. I always run the layout with steam locomotives because the motion of the connecting rods and valve gear exhibits more activity than a diesel locomotive that looks as if it is stopped but yet not stopped, if that makes any sense.

The layout structure is 100% pink Styrofoam insulation panels roughly carved and hot glued together in layers. It is hollow a few centimetres beneath the surface. The faux-rock surface is a mix of cellulose insulation, wallpaper paste and powdered black clothes dye – the result is an inexpensive grey finish which adheres well to the foam and is easy to paint (kind of a home-made Sculptamold). When it inevitably gets knocked during transport no plaster white shows through.



The layout has a hollow central core inside the Styrofoam (Figure 2). Secured into the top of the central core and hidden beneath a removable panel is the rim from a lawn mower wheel which has a very robust and free-spinning ball bearing assembly. The hollow central core accommodates a one-inch diameter wood dowel with a spike sticking out the top mounted vertically into a tripod (Figure 3). The entire layout is suspended from the inner race of the ball bearing assembly which sits on the spike. I found the tripod at Canadian Tire – it was intended to support halogen workshop lights, not a layout. The whole lighting fixture/tripod assembly was about \$60 on sale.



Setup is very simple: first the tripod with the vertical wood dowel is set up; the layout is then lifted shoulder-high with the hollow core lowered over the dowel; electrical connections are made with quick-connects; finally, black skirting material is mounted around the base to hide the tripod, wiring, etc.

The locomotives I run on this layout are all DCC and sound equipped, controlled with a Digitrax Zephyr system. In order to get reliable connectivity from the DCC system to the rails I built a system of stationary wipers mounted on the tripod, just beneath the bottom of the hollow core. The wipers are made from the contacts found in a common household light switch (cheap, sturdy and designed to conduct electricity) which have been affixed to a home-made spring-loaded device to ensure that they make good contact. Hot glued to the bottom of the hollow centre core is a copper-surface circuit board – what one looks like before the copper is etched to create circuits. I cut the circuit board to roughly the dimensions of a DVD disc but with a

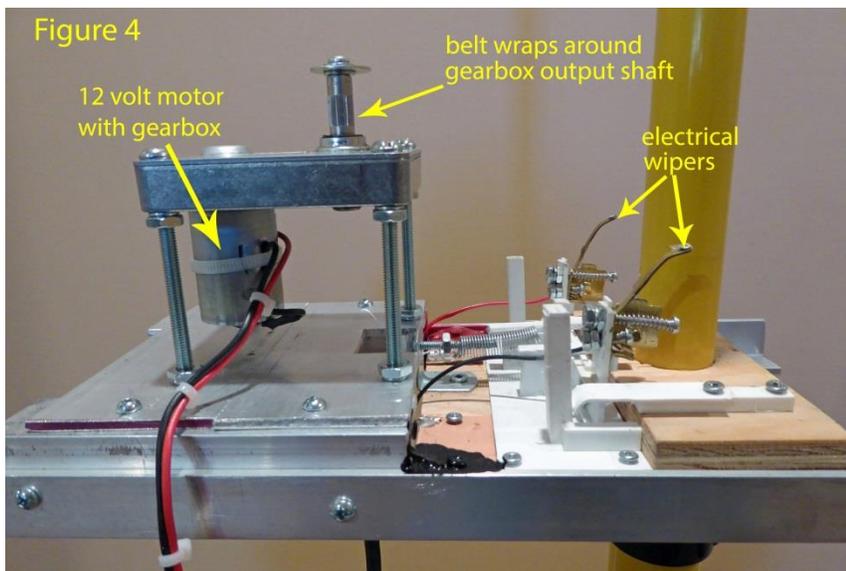
one-inch hole in the middle to accommodate the wood dowel which must pass through the disc. Using a Dremel tool to make a circular groove in the copper layer, I created two electrically-independent concentric “tracks” which are soldered to two wires leading to the HO rails. When the layout turns, the copper “tracks” drag across the two electrical contacts thus connecting the DCC controller to the locomotive.

My original idea was to have the layout tilted slightly at an angle, much as the Earth is tilted on its axis. A train would start out on the low side of the tilt and once it had climbed a certain distance up the “hill” the layout would turn on its own and the train would stay in one place. This proved impossible to execute. The train would climb and, as expected, reach a point where gravity took over. The layout would gather so much momentum that it spun the train around backwards to the down slope of the “hill”. This repeated surging was not pleasing to watch.

I decided that I needed a motor drive to turn the layout at a constant speed. Scrounging through the small motor bin at Princess Auto I found the solution. It is a 12-volt motor mounted into a gearbox (about \$15). I rigged up a mechanism to mount the motor on the tripod shaft just beneath the bottom of the hollow centre core. This device doubles as the mounting platform for the electrical contacts described above. I cut the bottom off a metal coffee can and hot glued the resulting tube around the base of the hollow centre core of the layout. This particular coffee can has several grooves molded into its circumference which are perfect pulleys. I then positioned a rubber drive belt around the coffee can “pulley” and the output shaft from the gearbox which, as luck would have it, is knurled and provides good traction. Power for the motor is supplied from the variable DC output of an old model railroad power supply (Figure 4).

This powered design worked very well – the layout speed could be set to match the speed of the train running in the opposite direction, thus

keeping the train in one spot all the time. However, glee quickly turned to disappointment when the two would become unsynchronized in less than a minute. The problem was with subtle variations in the speed of the layout motor as well as that of the train. These variations are not noticeable to the eye but they exist. To get the desired effect, the speed of the train or of the layout had to be repeatedly adjusted – not much fun doing that all day long at a show! I needed to devise a way to automate the adjustments.



I had used Arduino microcontrollers for some animation and lighting effects on the basement HO layout at our last house. These are great little devices designed in Italy which are intended for hobbyists and artists who need a simple way to translate some sort of input (push button, switch, accelerometer, thermometer, light sensor, GPS sensor, etc.) into some sort of output (LED or light bulb to flash, DC motor, servo, sound to play, LCD display, etc.). To get started I purchased an excellent kit for around \$100 which contains about 15 separate projects and all the necessary electronic parts, as well as very clear instructions and the basics of the programming language C++ which tells the device how to behave. I have no computer programming experience but it was easy and a lot of fun to learn the Arduino. Programming is done on your personal computer using freeware and the code uploaded to the Arduino through a USB cable. There are

thousands of people around the world who offer solutions to problems and advice on Internet forums and even the code they have written for their projects. There are several Arduino models suitable for various applications but the model I use is the Mini which costs less than \$25 a copy.

I used two Arduino microcontrollers for an automation solution. One Arduino controls the motor speed using outputs from the other which identifies where the train is on the layout.

I first buried several light sensors in the ballast between the rails at intervals around the track. Each sensor is about 4 mm wide so they are easy to hide. When a sensor is shaded by the presence of the train, the Arduino mounted under the layout powered by a 9 volt battery causes an LED mounted immediately beneath the layout, thus under the train, to shine on the ground. If the layout is turning exactly in sync with the train each LED shines on one spot, as if stationary. By way

of analogy, if you walk on a treadmill and shine a flashlight on the ceiling above you, the beam remains in one spot – until you stare at the ceiling too long which causes you to fall off the back of the treadmill and hit yourself in the face with the flashlight.

I then acquired two inexpensive camera tripods and mounted a PVC electrical box on each. I put a light sensor in the top of each box. These are wired to the second Arduino microprocessor housed inside one of the electrical boxes which is then wired in series with the electrical supply to the motor described above. One tripod is positioned under the layout just ahead of the desired position of the locomotive and the other just behind the desired position of the caboose. As the layout turns, if no LED shines on either tripod it means that the train is located correctly because it is between the two tripods. If the

layout is going slower than the train (which always travels at a constant speed), the train will drift ahead, causing the LED under the locomotive to shine on the front tripod. The Arduino will then slightly increase the speed of the motor turning the layout which, in turn, causes the train to drift backward. Conversely, if the layout is going faster than the train, the train will drift backward, causing the LED under the caboose to shine on the rear tripod. The Arduino will then slightly reduce the speed of the motor turning the layout which, in turn, causes the train to drift ahead.

When the layout and the train are first turned on, the train “hunts” back and forth for a few minutes between the tripods and even overshoots as the Arduino adjusts the speed of the layout to match the speed of the train. At train shows the layout will run with the train in the correct place for the entire six to eight hours of the show without any attention or need for adjustment. I have an old notebook computer that I can plug into the stationary Arduino located in the tripod. Using Microsoft Excel it graphically depicts in real time the speed of the

EMRA OOpS – Peter Ulvestad

After an operating session that was organized for the 2009 PNR Regional Meet in Edmonton, it was suggested that the EMRA have regular weekend sessions that guests could attend. After discussions with the club’s executive of the time and a very positive vote by the membership we held our first session on November 28 of 2009. In February of this year we held our 24th session.

People may wonder what OOpS stands for; it is 'Open Operating Session'. Are there actual oops during these sessions? Of course, but fewer than our regular Tuesday night member sessions. We have the occasional car leave the tracks but never had one leave the layout. Occasionally a train makes it to a location they aren't supposed to be at yet much to the chagrin of the dispatcher and traffic coordinator.

layout in scale km/hr, the average scale speed and the times when the front and rear tripod sensors detect the light of the LEDs from under the layout. This helps me explain to guests what is going on when they show more than a passing interest.

This was a fun problem solving exercise and a great learning experience. The layout is good fun at train shows because of the conversations I have with inquisitive children and interested adults; there are occasional squeals of delight – from the children, that is.

Rupert James lives in Regina, Saskatchewan and is a member of the Echo Valley Railroad Guild. In 2015 he and his wife moved from their home with a basement HO layout and an extensive garden railway to a bungalow condominium. The garden railway was purchased by a fellow club member who has it up and running again. Rupert’s construction of a new basement HO layout is well underway. He is a Chartered Professional Accountant and Chartered Accountant and is a senior executive with a major private Saskatchewan company.

I am constantly surprised at how far people come for our sessions. We have regular attendees from both the 6th and 7th divisions of the PNR. Regulars include people from Spirit River, Camrose, New Norway, Calgary, Saskatoon SK, Regina SK, Armstrong BC, Revelstoke BC and Quesnel BC, as well as locals. We have also had attendees from Medicine Hat, Lethbridge and Chicago.

A gentleman from Hinton enquired about attending a couple years ago. He had never been to an operating session or to the EMRA before. He drove out to the session for the day completely unsure of what he was getting himself into. Pat lives a little closer now and became a member of the EMRA. He attends meetings and operating sessions whenever he can get to Edmonton.

These sessions have helped the club get lots of ideas for improvement, some of which we have incorporated and others due to physical change requirements probably won't see the light of day.

Over the last 6+ years we have only filled up 3 times that I remember and 2 of them were for the last 2 sessions. As with any layout, there is only so much room and so many operating positions. To keep everyone busy we have to put a limit on the number of operators.

A couple of special shout outs before I end. First is to Norman Skretting who has been teaching some of our members how to be dispatchers. And second is to Doug Lee for all the support he has given the EMRA.

If you would like to receive emails about upcoming sessions please let me know at: ulvestad@telus.net

Winter on Tehachapi– Cal Sexsmith

On the weekend of January 30 to February 1 (Saturday through Monday) I was able to attend the Winter on Tehachapi TT&TO operating session. The La Mesa Model Railroad Club in San Diego is building a representation of the Southern Pacific's Tehachapi Pass line between Mojave and Bakersfield (all in California). The prototype is known for the Tehachapi Loop on the eastern approach to the pass and in addition to owner Southern Pacific; the Santa Fe has trackage rights over the pass. This line is the main freight route between Los Angeles and San Francisco.

The prototype Tehachapi Subdivision is about 100 miles long, the La Mesa Club has been able to fit in a 32.2 scale mile mainline in HO scale (about 2800 real feet) between their representations of Mojave and Bakersfield. The layout is located in the San Diego Model Railroad

Thank you to all who have made OOpS a success and I hope to see you at sessions in the future.



Gerry Frigon and Glen Presley are having some fun switching Castlegar Yard on the Monashee Pacific Railway at the OOpS session on Feb 6, 2016. (photo by Rob Badmington)

Museum in Balboa Park. Several other model railroads in scales from N to G are also in the Museum. Much of the layout is open to the public and the operators frequently interact with the public.

The La Mesa Club holds a number of operating sessions each year. Two of these sessions (early November and late January) are operated using Time Table & Train Order (TT&TO) and the November 27, 1952 time table. Boomer operators from across North America attend these two sessions, some on a regular basis. I had the opportunity to spend about eight hours operating at a special session held in conjunction with the 2008 Anaheim NMRA Convention. By attending that session I was able to get my name on the invitation list and have regularly been getting two invites every year. I was finally able to take advantage of the invitation this January.

Because of the size of the layout they use real time. Each day they operate from 8:00 am to 8:00 pm. Dispatchers, Train Order Operators and Yard Masters work six hour shifts and road crews operate as called. When I arrived Saturday morning it was 8:00 am December 23rd, 1952 and when we shut down at 8:00 pm on Monday it was 8:00 pm December 24th, 1952. As they keep advancing the days each session their next session will be Christmas! Lunch is brought in each day, supper is brought in Saturday and Sunday and breakfast on Sunday as the hotel restaurant opens later on Sundays. A donation of \$5 is expected for each meal.

The Tehachapi operates using Southern Pacific rules. Some significant deviations from "normal" are:

- All trains headed towards San Francisco are westward, although trains on Tehachapi headed towards San Francisco are more or less heading compass north.
- Westward trains are superior to eastward trains of the same class; this is the reverse of most railroads.
- The train order boards are normally set to stop and only cleared once the operator has confirmed with the Dispatcher that there are no orders for the train.
- Unlike western Canada the SP uses am and pm rather than a 24 hour clock.

On the layout itself there is a major yard complex (both SP and ATSF) in Bakersfield and a smaller yard in Mojave as well as staging yards. Double track is in place between Mojave and Tehachapi and between Bena and Bakersfield. Passing sidings are at Ilmon, Caliente, Allard, Bealville, Cliff, Rowen, Woodford, Walong (Tehachapi Loop), Marcel and Cable. TT&TO operators are located at Mojave, Tehachapi, Woodford, Caliente and Kern Junction (where the SP and ATSF join on the east end of Bakersfield). There are six scheduled passenger trains in each

direction, many running in two or more sections. And four scheduled eastward freights, most operating in three or four sections. All but one westward freight train are operated as extras.

My first train was a westward Santa Fe extra out of Tehachapi. Because of the double track (Rule 251) between Mojave and Tehachapi the previous day's crew had brought the train to Tehachapi without train orders. Before the train could leave Tehachapi I needed orders. After a wait of about one hour I received a clearance and two train orders from the Tehachapi operator. Train order 21 gave Extra ATSF 212 west right over first 804 Tehachapi to Bena and wait at Woodford until 930 am and Caliente until 10:01 am. The second order, number 22, was my running order and read Eng ATSF 212 run extra Tehachapi to Kern Junction. With these orders in hand I was able to depart Tehachapi once I had confirmed that all superior eastward trains had arrived. From this point the train proceeded to Kern Junction with little interference from other trains and no additional orders. However, with a 32 mile long mainline it still took over two hours to complete the run. The timetable shows that it takes just over an hour to run a passenger train end to end and a minimum of an hour and a half for freight. This is assuming that there are no hiccups enroute.

After lunch I was called as the first helper on second 804 from Bakersfield to Mojave. This train was close to 100 cars long and had an ABBA set of F7s on the headend, a 4-8-8-2 cab forward midtrain (me) and a 2-8-8-4 (cab backwards?) cut in 9 cars ahead of the caboose. The road power and each helper had its own crew. Although we got off to a good start the cab forward split its universal joint entering Cliff and we were unable to proceed. The general superintendent intervened and the front half of the train moved into the clear in Cliff siding while the back half drifted downgrade with the cab backward into the clear at Bealville siding. The dispatcher annulled out train at Cliff and I was taxied back to

Bakersfield to pick up a second Cab Forward. I then had to get train orders to run extra to Cliff carrying orders for the rest of the train to proceed to Mojave as an extra. We eventually arrived in Tehachapi over four hours after we left Bakersfield. The helpers were cut off at Tehachapi and turned on the wye while the road crew took the train into Mojave. So ended day one, 12 hours - two trains.

On Sunday I worked as the Caliente Operator between 8 am and 2 pm. After a late lunch I ran two more trains, one east and one west. Monday morning I again ran a couple of trains and

between 2 pm and 8 pm I did a second shift as the Caliente Operator. While I was at Caliente the steam helper on an eastward Santa Fe passenger train lost a main rod. The train sat in Caliente for nearly an hour until it was decided to steal a unit off of the Mountain Local that had just arrived from the east. The train then departed with an SP RSD-5 leading a Santa Fe PA-1.

The Tehachapi TT&TO sessions aren't for everyone as there is very little on route switching and a lot of sitting around waiting, but for myself I will do it again.



A Southern Pacific F7 ABBA set leads a train around Tehachapi Loop on the La Mesa Model Railroad Club layout in San Diego during a 12 hour operating session. (photo by Cal Sexsmith)

Upcoming 2016 Events in the 6th Division (and one in the 7th Division)

See all the PNR events and our most recent additions at pnr.nmra.org

Mar 11-12 (Friday evening - Sat), Calgary, AB

Calgary Prototype Modellers Meet. Friday 7:00pm "Weather with Roger" Participants will bring cars to weather after Roger Walker MMR does a 20 to 30 minute intro. There will be a \$25.00 charge for this part of the Proto Meet to cover a weathering kit participants will take home. The number of participants will be limited to 12 for this, and must pre-register.. Saturday 9 AM-4 PM –Show & Tell displays and more clinics. St. Andrews Presbyterian Church 703 Heritage Dr. SW Info: Dave Audley, 403-275-1869 or daudley@telusplanet.net Admission for Saturday: \$10, under 12: free.

Mar 13 (Sun), Calgary, AB

CMT Annual Flea Market 2015. 8:30 to 10:30 am. Glenmore Inn, corner of Glenmore Trail and Ogden Road. \$20 for standard 2' X 8' size table. Info: bharrow@nucleus.com or call 403-201-4937.

Mar 13 (Sun), Calgary, AB

CMRS Spring Mini-meet. 10:45 am to 3:30 pm. Glenmore Inn, corner of Glenmore Trail and Ogden Road. Show & Tell, Clinics and more. Info: www.calgarymodelrailway.ca

Mar 19 (Sat), Edmonton, AB

MMRF Spring Swap Meet. 9:00 AM to Noon. Central Lions Seniors Recreation Centre, 11113 113 Street. Admission \$3, Tables \$25, sold first-come, first-served. For more information please contact Ric Francoeur, Ph. 780-458-1932, swapmeet@mmrf.ab.ca

Mar 19-20, Moose Jaw, SK

Model Train Show. Sponsored by the Thunder Creek Model Railroad Club. Western Development Museum, 50 Diefenbaker Drive. The museum is opened from 9 a.m. to 5 p.m. Info: stirling.millar@live.ca , www.wdm.ca or 306-693-5989

Apr 16-17 Calgary, AB

SUPERTRAIN 2016 Canada's Biggest and Best Annual Model Train Show. 9 AM to 5 PM both days. Genesis Centre, 7555 Falconridge Blvd. NE, Calgary. FREE PAVED PARKING or take the C-Train to Saddletowne Station. Additional parking at McKnight-Westwinds CTrain station with free shuttle to show. Adult - \$10, Youth (6-12) - \$5, under 6 - free. Over 70,000 sq. ft. of operating layouts, exhibits and displays, railroad artists, hobby shops, model manufacturers, demonstrations, clinics, museums and railroad historical associations, Lego and Thomas Play Area, garden railways, ride-on trains, and much more. Info: www.supertrain.ca or email to info@supertrain.ca

Jun 15-19, Salmon Arm, BC

PNR Regional Convention - Selkirk Express 2016. There will be bus trips to the Kettle Valley Steam Railway and to the Revelstoke Railway Museum. Layout tours, clinics, contests, a public show and Free-Mo meet.

Info: www.SelkirkExpress2016.ca

Sep 16-17, Sherwood Park, AB

2016 MMRF Great Edmonton Model Train Show, 10:00 to 5:00 each day. Millennium Place, 2000 Premier Way, Sherwood Park. Admission \$10.00, \$5 for youth 16 and under. Children 4 and under free. Two soccer fields of model railroading fun. Activities for the whole family including the LEGO Activity Centre. Many operating layouts and static displays. How-to clinics & demonstrations by the experts. Dealer booths. Email: trainshow@mmrf.ab.ca

Oct 15 (Sat), Calgary, AB

37th Annual Boomer Auction, Sponsored by South Bank Short Lines, St. Andrews Presbyterian Church, 703 Heritage Dr. SW. Setup and viewing 9:00am, auction starts at 10:30am. Note earlier start times. Info: - John Wrinch, (403) 281-745, jawrinch@shaw.ca

Oct 16 (Sun), Calgary, AB

CMRS Fall Mini Meet and Annual General Meeting, Glenmore Inn. Clinics, Show & Tell