

MODELING: HO FREIGHTHOUSE • N SCALE C&NW CABOOSSES

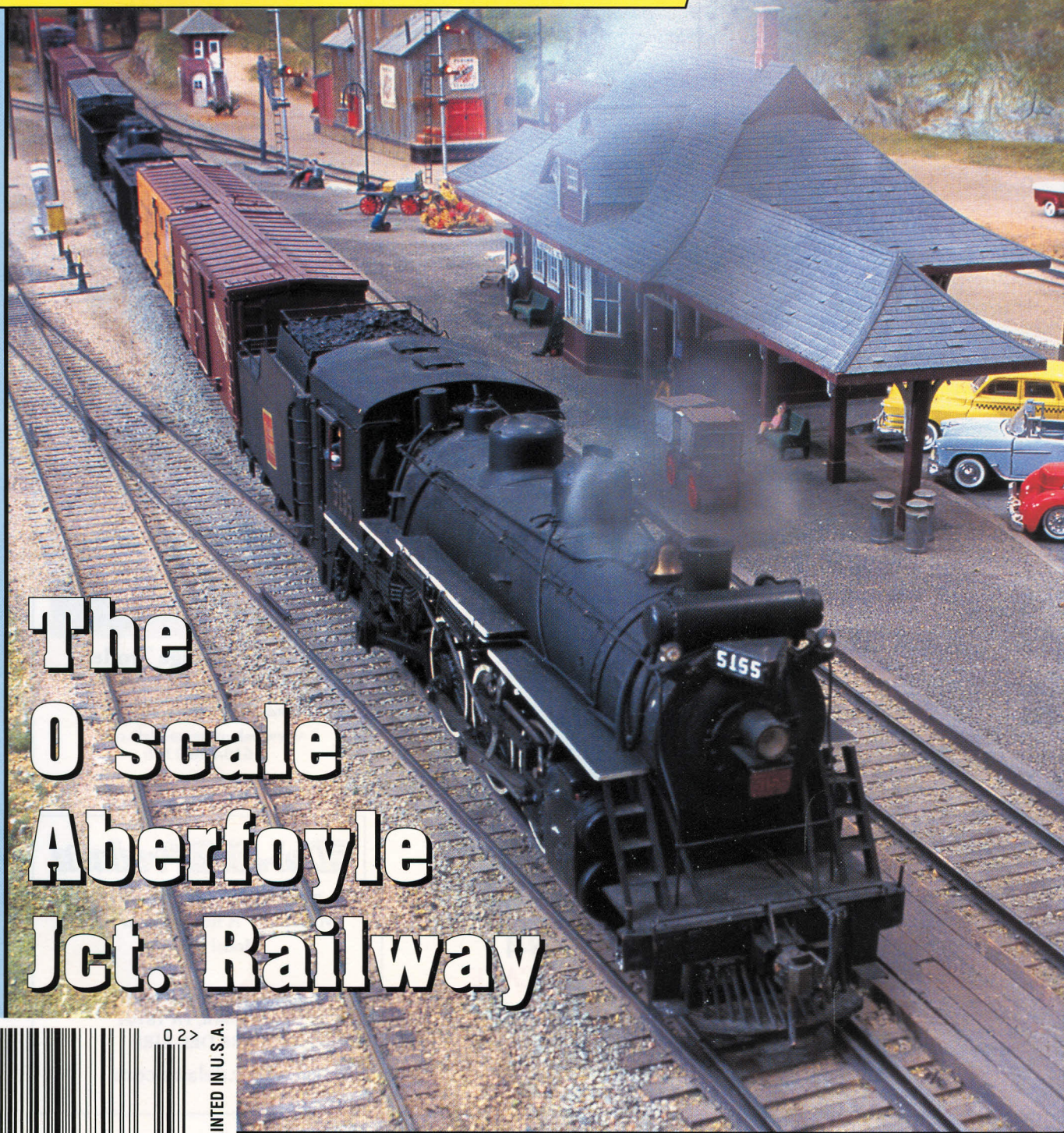
RAILROAD MODEL

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**The
O scale
Aberfoyle
Jct. Railway**



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Aberfoyle Jct.: One layout, two railways

A large O scale club layout/Craig Webb, with photos by Pete Moffett

Sometimes things in our hobby seem to happen through a series of fortunate circumstances, and such was the way the Aberfoyle Junction Model Railway, a large O scale layout in Southern Ontario, came to be. Back in 1972, Frank Dubery had an urge to build a display layout to introduce the general public to our hobby. At the time he was a member of the Model Railroad Club of Toronto, a large O scale group in, of course, Toronto. He and his wife, Gay, were friends of the owners of the Aberfoyle Antique Mar-



ket in the namesake village, about an hour's drive west of Toronto. These folks offered Frank a 32 by 32-foot room on the upper floor of a small barn on that property. He got to work that autumn. His concept was a mid-1950's, single track branch line crossing a double track main. Both were essentially loops with lots of hidden staging. The centerpiece of the railway was the junction, protected by operating semaphore signals, with its three-track interchange yard, which allowed for some switching. Frank hand-laid all visible

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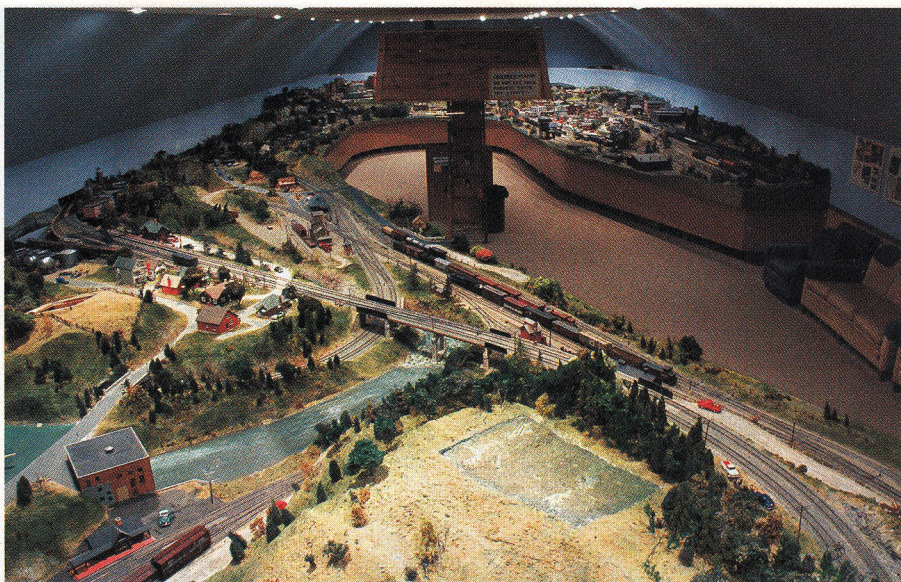


trackage and built the signals. His rolling stock was mostly freelanced, lettered for the Central Ontario Railway, the fictional bridge line operated by the Toronto club.

Frank had just begun the project when he met Chuck and Gwen Bard during a steam fan trip. They had a Lionel outfit at home, but Chuck had already scratchbuilt several scale steam locomotives in brass and Gwen enjoyed doing scenery. The Duberys and Bards formed a partnership. Within a few years Wayne Pfeiffer, who was a Lionel collector and knew the Bards through that connection, decided to get into scale O as well. I was a member of the Hamilton, Ontario, O scale club and discovered the group and was invited to join. Thus was born a friendship in the hobby that is now 27 years old.

Since Chuck liked building steam lo-

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comotives and I enjoyed scratchbuilding passenger cars, the COR locomotives and passenger equipment were soon outnumbered by Canadian National and Canadian Pacific equipment. Frank's track plan lent itself to a two-railway theme, the single track becoming CP, and the double track, CN. All new rolling stock and structures were constructed in keeping with the theme: Southern Ontario during the late fifties. As the 1970's progressed, additional track was added and more and more rolling stock built, but there was a limit to what could be done in O scale in a 32-foot square room, especially when a reasonable amount of the floor space had to be kept clear for the audience. The group began thinking of a new and hopefully larger home.

The big move

Things started coming together in 1979 when the construction company Frank worked for was winding down a project on the shores of Lake Huron and wanted to sell the Quonset style building they had used as a warehouse. Wayne was a partner in a fourteen-acre rural property at the south end of Aberfoyle village. The group decided to purchase the structure and, with the help of friends, dismantled it and moved it to Wayne's property. Over the next few years, while continuing to operate the existing railway, the building was re-erected, framed and insulated inside. A small lounge and gift shop was set aside at the entrance, leaving a room measuring 83 by 32 feet for the new layout. In November, 1982, when

Canada's two principal railroads, the Canadian Pacific and the Canadian National, are represented on the layout. A seven car CPR freight, powered by a MLW road switcher, works the Aberfoyle Jct. interchange, while on the tracks above it a CN freight waits for a commuter train to cross over in front of it (left). Visitors in the gallery get a bird's eye view (above). The control tower is in the center of the room. A Royal Hudson goes for a spin on the Westport turntable (below). On the hill in the background is the CN's Kelso yard.



Aberfoyle Jct.: One layout, two railways



Caledon Junction is a rural stop on the CPR. While an RDC provides local passenger service (*above*), a short freight pulled by a pair of MLW FA's burbles by. The station includes living quarters for the agent and his family, as well as section buildings for the track crew. The town of Westport comes to life during the night (*page 57*). Interior lighting on the buildings and passenger cars shows off the many details included in the models.

the Antique Market closed for the winter, the old layout was dismantled and taken to the new headquarters.

A track plan had been developed that

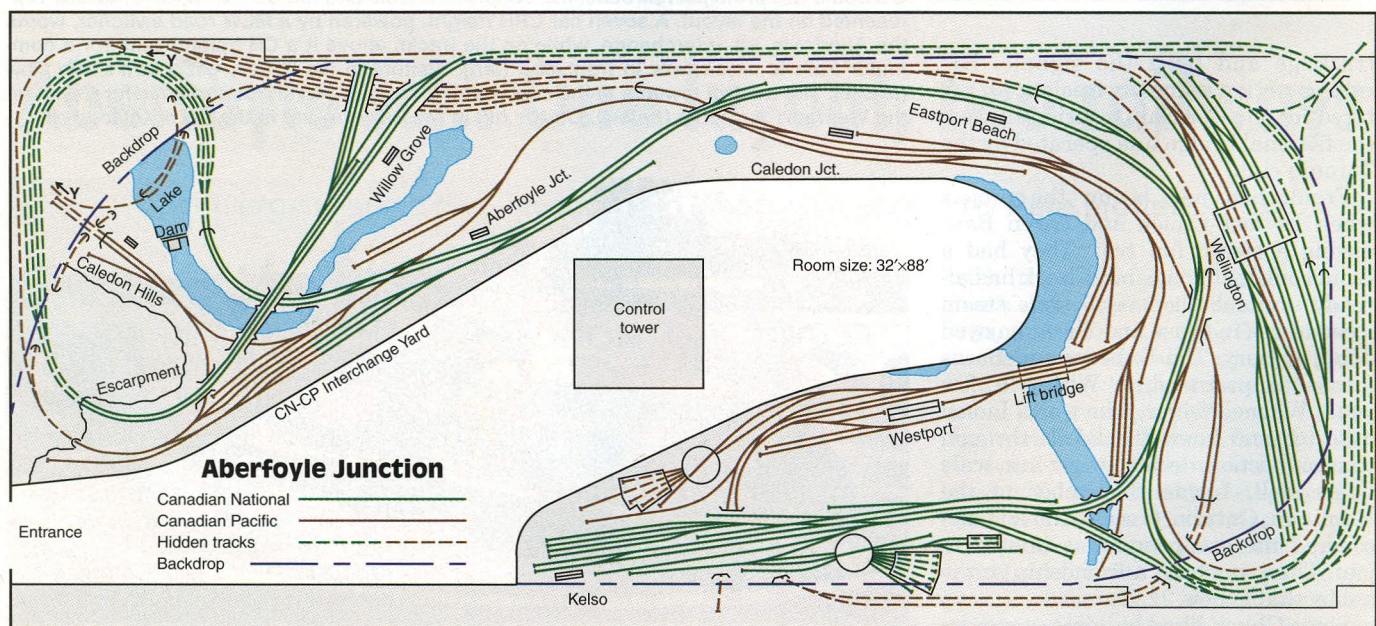
made use of all the visible trackage from the original layout but then extended the theme around three sides of the new room to leave a large, central floor area

for viewers. When the concrete floor was being poured, a column made of two H-beams welded together was set into it to support a central control tower seven feet above the floor; conduit pipes were run from it to places where the layout would eventually be. All trains, the remote electromagnetic uncouplers, and turnouts were and still are run from this location. With so much more real estate, the original theme was maintained but expanded.

Aberfoyle Junction was rebuilt at the northeast end of the room, allowing rural scenery to extend south along the east wall. Across the south wall is a foreground waterfront scene behind which rises the City of Wellington with its Union Station, the only place besides Aberfoyle Junction where the two railways connect. The west wall is home to a small town. The CN has a stub yard there, called Kelso, while in the foreground, CP has a through facility called Westport, so-named because it ties in with the waterfront scene. So, while visually there is one town, operationally there are two. With the railway around the walls and the control tower in the center of the room, visitors see the model railway with no "giants" in the scene, a problem model railways with central operating aisles have.

Construction

During construction, the new layout made use of the proven technology of the period. The roadbed was made of splines mounted on L-girder benchwork. The splines were overlaid with Ten-test brand fiber board, and over 20,000 wood ties were cut and the rail spiked down. In the staging areas, Atlas flexible track was used to speed





up the work, although even there the switches had to be handbuilt. Scenery was done using hardshell plaster with an overcoat of patching plaster carved to form rock faces as it set. Where the patching plaster was to represent soil, it was mixed in a ratio of 1:3 with sifted sawdust (from all those ties) to make it go farther and add texture.

While the fellows were involved in the layout carpentry and trackwork, Gwen, with Gay's help, was already getting the scenery materials ready. They sifted and dyed grades of sawdust, chopped up old foam pillows in a blender, and dyed the material to make a variety of ground covers. Gwen also made thousands of trees using most of the standard tree-making techniques. All this material was ready to be applied by the time the layout was ready for scenery.

The electrical system was designed by Chuck, who was an electrical contractor. Trackage was wired in a standard block system using variable transformers as throttles. There are seven altogether, with two for the CN's double track mainline and two for the yards at Kelso and Wellington. When a train is ready to arrive or depart a yard, relays direct the appropriate mainline throttle to the yard track it is to use. On the CPR, rotary selector switches allow any of three throttles to be assigned to

a particular track. The switch machines are rotary relays, and all turnouts have one, so the entire layout may be run from the tower.

A major effects feature of the electrical system is a day-to-night sequence designed by Chuck. A drum rotates slowly and operates 64 micro-switches that are connected to over 400 bulbs in the structures, street lighting, etc.; they turn on and off in a random sequence. While this is happening, the ceiling lights slowly dim; after six minutes they slowly brighten again.

Once basic scenery was put in place, we went back to the structures, putting interiors in those near the front of the layout and lighting almost all of them, so there was lots for visitors to see.

The two-railway theme

As the railways were being built, efforts were made to make each right-of-way clearly definable. Trackwork was the first consideration. Here in Southern Ontario, CN's mainline is generally double track, while CP's is largely single track, so that's the way our track plan was designed. While most yard trackage was laid with code 100 steel rail, CN's mainline was done using code 148. The CP was done with lighter code 125. CN's ballasting was done with lighter colored stone than CP's so the tracks were visually differ-

ent. Even though all turnouts were electric, all visible ones have non-operating switchstands accurately modeled from CN and CP prototypes.

Structures were the next consideration. Since each railway runs through rural, suburban and urban scenes, stations and other buildings were chosen to compliment the specific location. Generally speaking, all railway buildings were full scale models built from either railroad plans or by measuring and photographing a particular structure. Each company's architecture was clearly defined in shape and paint, and only Wellington Union Station was freelanced. This was because these big city terminals were usually one-of-a-kind, and since we were aiming for a generic Southern Ontario appearance, we didn't want to identify with a particular city.

Almost all the non-railway structures have a prototype, too. For us, the mid-1980's was a time of photographing any building that might fill a need on the layout. However, in some cases, full-size, scale dimensions had to give way to selective compression to make the building fit a particular location. Along the skyboards behind Wellington and Kelso, great use was made of flats to create the feeling of big buildings without using too much ground space.

Rolling stock probably comes to most modelers' minds first when they think

Aberfoyle Jct.: One layout, two railways

of a specific railway. While I've already mentioned that I like building passenger equipment and Chuck likes turning out steam locomotives, we've all had a hand in supplying equipment.

In the days of company shops and drafting departments, probably the most distinctive equipment were the locomotives and passenger cars, so these were mostly scratchbuilt. Cabooses also fit this category. With the coming of diesels, of course, railways started buying off-the-shelf, so it's simpler to add a few custom details to a kit or ready-to-run engine and apply the appropriate paint. Freight cars have been mostly made from kits, as well, since they roam the entire North American rail network.

At last count, the locomotive fleet saw 14 steamers on the CNR and six on the CPR. These include everything from 0-6-0 yard goats to CP's Royal Hudsons and CN's Mountain and Northern classes, which became well known as fan trip engines in the 1960's and 1970's. The diesel fleet consists of 16 units on the CNR and 15 on CP. Again, these range from GM and MLW switchers to road switchers and cab units representing those builders and Canadian Locomotive Company.

There are 74 pieces of passenger train equipment, and they cover just about everything running in the late 1950's. While the majority are of CN and CP



The tanker *Shell Ontario* (above) is nudged past the operating triple-track Bascule bridge at Westport while a CPR passenger train waits for the bridge to be lowered. The west-bound *Canadian* departs the busy Wellington station (below). Both CPR and CN trains use this station. Eastport Beach (page 59) is a popular destination on the layout. Passengers arriving on the CN must cross over the CPR tracks via a scratchbuilt footbridge.

prototypes, some head-end cars are from U.S. roads and there are some Pullman sleepers to represent the international trade common in Southern Ontario at that time. One train that seizes the public's attention is an eight-car version of

CP's *Canadian* in its original 1955 colors. All passenger carrying cars and the RPO's have fully detailed and lighted interiors and are complete with figures. In the dining cars, the tables are even set.

We have about 250 freight cars rep-



representing the great variety of equipment that ran through Southern Ontario. This was still the era of the wooden caboose on both CN and CP, so these punctuate freight trains. Most are scratchbuilt from wood and styrene, but there are a few examples of the etched brass kits that have been available recently.

Small ports where railroads and ships exchanged freight and passengers were very common at one time. As late as 1960, Canadian Pacific ran two passenger ships between Port McNicoll on Georgian Bay and Fort William (now Thunder Bay) on Lake Superior. On days the boats docked, special boat trains consisting of baggage cars, coaches, and parlor equipment were run between Port McNicoll and Toronto or Fort William and Winnipeg. A retired CPR engineer once told me that freight was also carried on these ships, and a regular assignment he had in the late-1950's was working the freight shed at Port McNicoll and setting out and picking up boxcars.

We decided, since the CPR trackage is generally lower and toward the front of our layout, that the waterfront was CPR territory. In addition to a steel fabricating plant, a cold storage warehouse and a small tank farm, there is a standard CPR freight shed on the docks. The tracks across the river here are on a three-track bascule lift bridge, which does operate and was built by Chuck with Frank's help, mainly from stripwood. Recently, the waterfront was enlarged and a non-railway, beach scene was added; it has picnic facilities, a change house and outhouses, and a snack bar, all made of styrene using the novelty siding so typical of the early-to-mid 20th century. The general public really seems to enjoy such details, so we have worked little vignettes like this in wherever possible.

Operating the railway

As already mentioned, this layout was mainly designed as a display layout to introduce the public to the hobby. We have five weekends of advertised shows a year, two in the spring and three in the fall. For these we charge admission, and ever since 1984 these shows have provided enough income to cover the costs of running the building and provide some extras, such as carpeting for the concrete floors and TV cameras and monitors to help operate areas that are hard to see from the tower. In addition, we do private openings for church groups, seniors clubs, school classes, and so forth. We also, of course, have hosted other model railway clubs and NMRA meets. While our advertised shows run all day and the two



ladies in the group run a gift shop and snack bar in the lounge, the private groups usually stay about an hour.

Our operations would be considered rather *ad hoc* by modelers who are into operation with fast clocks, car forwarding systems, etc., but what we do is geared to who is watching. For a full show, we need six operators in the tower. Two are yardmasters: one for Wellington, one for Kelso. Since these are stub terminals, arriving trains can be broken up, engines turned and passenger trains re-blocked for their next run. Two operators run the CNR double track mainline, which is really a large loop. There is hidden staging at the north and south ends of the room for each railroad, so they don't just loop one train. As the yards have trains ready, the mainline operators can send one in and take another out.

Switching locations are provided on both mainline tracks. Two more people run the CPR. This line is single track with turning loops at the north end and behind Westport. There is also a hidden staging yard half way along, so these two operators decide who is going to run what and set the rotary selector switches accordingly. In addition, CP has a hidden track that runs between the north turning loop and Wellington Union Station at the south end, so CP passenger trains and an occasional freight run into Wellington.

If a group of people is gathered at Aberfoyle Junction, the CN and CP operators will try to coordinate inter-

changing a few cars there. Other switching is done with a similar agenda. If one of us hears someone talking about the turntables, we try to adjust our yard switching to use one at that time. About every forty-five minutes during our day-long shows, or toward the end of a private show, we do the "night scene." At this point operation becomes a little more involved. Since the passenger trains have full interior details and lights, we try to have five of them running during the night scene, two on the CN main, and three on the CPR. When the coordinator in the tower says it's time for a night scene, everyone's job is to get their trains in order. The tower becomes absolutely black in the dead of night, so it is imperative that you get all the blocks and turnouts set in advance. Night operation, then, becomes a routine that makes you concentrate, unlike the more informal daytime periods.

So there you have it. Two railroads operating on one large layout, thanks to Frank's initiative and original planning way back in 1972. The Aberfoyle Junction layout will be available for viewing at the NMRA's 2003 National Convention, The Maple Leaf Limited, in Toronto, Ontario, Canada, over July 13-20, 2003. For information on the convention visit the web site, www.ml2003.com, or e-mail them (info@ml2003.com.) You can also write to ML2003, Box 56006, Hwy. 8; Fiesta Postal Outlet; Stoney Creek, Ontario, L8G 5C9, Canada; or phone 905-560-6414. 