

# The Crossing Gate

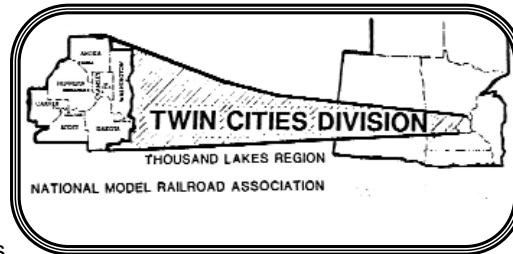


Newsletter of the Twin Cities Division, Thousand Lakes Region, National Model Railroad Association • [www.twincitiesdivision.org](http://www.twincitiesdivision.org)

## Twin Cities Division Celebrates 25 Years

The Division was formally incorporated under the State of Minnesota on May 7, 1982. Two years earlier, on May 18, 1980, Gary Krause of the TLR volunteered to explore the formation of the Twin Cities Division. On April 4, 1982 a formal meeting of the Twin Cities Division of the Thousand Lakes Region of the National Model Railroad Association was held. A Constitution, Bylaws, and Articles of Incorporation were adopted.

The first President was our Master Model Brewer. Others instrumental in giving the division wings were that are still quite active including: De Jim Perske. Others (not meant to be all inclusive Holzapfel, Ernie Schwenke



Original TCD Logo

of the new organization most recent Railroader, Lester who were instrumental in giving the fledgling organization several names familiar and quite Smith Lindeen and founders of note (by any means) were Fred and Mark Wilson.

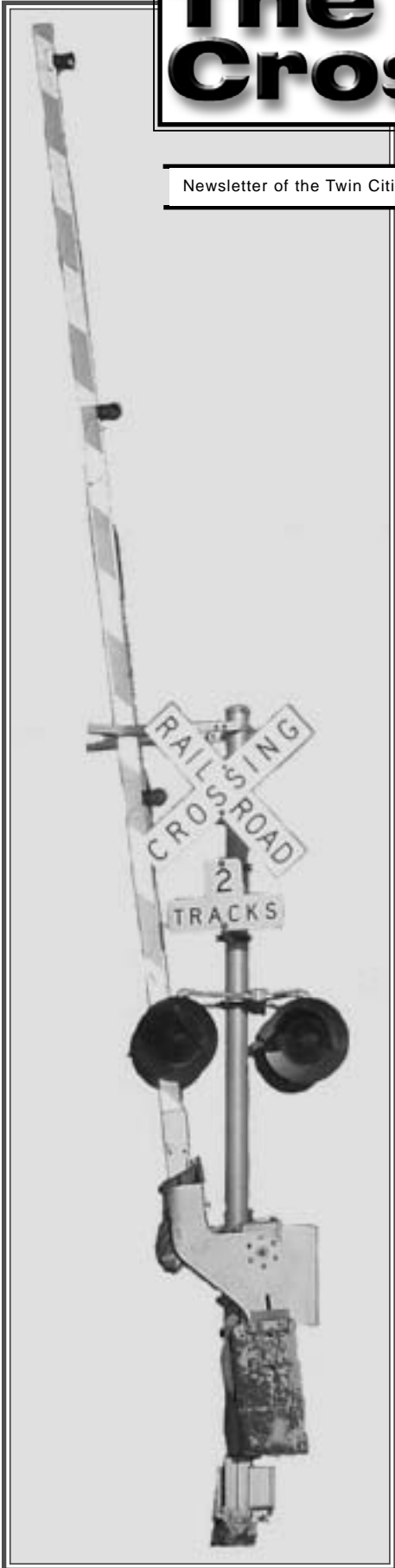
There are at least three functions for which the TCD was formed and which continue to be our focus. They are: education, recreational and social activities, and fellowship. The educational focus is primarily derived through the monthly clinics and through the publication of the Crossing Gate. The new location for the clinics at the Mill City Museum seems to have been well received so far, and the Crossing Gate continues to be published quarterly to keep members informed of events, provide modeling feature interest issues, and to and prototype stories.

The switch to the new location has been up about 20-25%, and about one-third to half of those who attend the clinics have a meal prior to the



Attendance at the clinics have a meal prior to the

**This May 9th at 7:00 PM**, we are holding the **Annual Business Meeting and Door Prize Finale** at a restaurant to promote our foci even further. The meeting will be at the **Old Spaghetti Factory Restaurant** on Park Avenue at Washington Avenue. (**Note: The date and time are changed.**) Come join us for a social hour (7-7:30), dinner and the meeting, (7:30-9), and don't forget to bring your tickets from prior meetings. In the mean time, give some serious consideration to taking on a leadership position as a Division officer. Being an officer in the TCD comes with benefits that far outweigh the responsibilities. It's a great way to have an impact on the model railroad community, and even more rewarding is the fact that it is a fabulous way to improve your modeling skills by getting to know some of the leading modelers of the Twin Cities area even better.



Twin Cities Division  
Board & Officers

For all Division business or questions:

**Superintendent**

Ron Bodin  
super@twincitiesdivision.org

To volunteer to give a clinic:

**Assistant Superintendent**

Bill Gisch  
asuper@twincitiesdivision.org

To volunteer for a train show or "Timetable" entries:

**Chief Clerk**

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subscription or address problems, or website issues:

**Paymaster & Webmaster**

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For Golden Spike or NMRA Certificate questions:

**NMRA Achievement Program**

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To volunteer your layout for a tour, or suggest one:

**Layout Tour Coordinators**

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and  
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For hobby shop or door prize questions:

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**Popular Vote Contest Chairperson**

Pam Notman

**VOLUME 26, NUMBER 1, SPRING 2007**

THE CROSSING GATE is published quarterly by the Twin Cities Division of the Thousand Lakes Region of the National Model Railroad Association. Material may be reprinted with permission.

Articles, photos, tips, or ideas are heartily encouraged and will be enthusiastically accepted in any format (PC or Mac; Word, Simple Text, typed, handwritten, scribbled on the back of a bar napkin, etc.). Send it to your editor by regular mail to THE CROSSING GATE, 9677 Able Street NE, Blaine, MN 55434, by email to editor@twincitiesdivision.org, or hand it to him at the next Division meeting.

Be part of the Division! If you're an NMRA member, become a Regular member of the Division (you get a year's subscription to THE CROSSING GATE, plus voting privileges) for only \$10 per year. If you're not an NMRA member, become a Subscriber (you get a year's subscription to THE CROSSING GATE) for only \$10 per year.



## From the Superintendent

To all members who have been to the new location for our meetings thank you for coming, and I hope you are enjoying the new place. When I became Superintendent I made a commitment to tour all the model railroad clubs in the Twin Cities. So far I've been to Steve Nitti N-gauge Club, the Great Northern Historical Society Club and the Hennepin Overland Club.

Steve's group concentrates their efforts on small but interesting railroad vignettes. The Great Northern Historical Society had a great selection of maps, pictures, memorabilia and more for those who might be looking for some reference materials. Hennepin Overland is adding a very nice addition to an already great layout. If you haven't seen it lately, you should.

I still want to go to The Newport Model Railroad Club, The University of Minnesota Club, and the New Brighton Connection. If there are any other clubs in the Twin Cities area that you may know about, please send me some information on them.

The April meeting will feature Neil Hovind from Eau Claire, who is called the "Builder Guy". He should be able to answer any questions you may have about building construction from plastic to wood. He may give you good ideas. I can attest to his expertise, as he has done some very nice work for me.

The Annual Business Meeting on May 9th at 7:00 PM will also be the 25th Anniversary of our division. A program and social hour are planned around the dinner which will be held at the Old Spaghetti Factory. Please let us know if you would like to attend the dinner...we will have a sign up sheet at the April meeting, so we can give the restaurant an approximate headcount.



## From the Editor

If you were at the March Clinics, you know that we are promoting greater fellowship. One of the ways we are doing that is to attempt to make sure that everyone in attendance has a name badge. As I evidently don't know how to say "NO," I took on the job of printing up the name badges, but I found that some of you don't particularly want to be called by the name we have on the mailing/membership roster. If you are one of those people who prefer a nomdeplume, send me an email or give me a call so I can get you a badge that says what you want.

I want to thank Bill Schimmelman and Arthur Hill for taking on the job of Layout Tour Coordinators. As you will see later in this issue, they have managed to put a tour together for Spring of this year. As the job has been vacant for a while and there has not been a layout tour since Fall of 2005, this is an aspect of our organization that had fallen into neglect. These members managed to get things going again in very short order, so if you bump into them, thank them for taking on the duty and for arranging what looks to be a great tour. While your at it, consider making the Layout Tour Coordinator position easier. A layout does not have to be the Gorre and Daphedid to warrant opening it up to the membership. And if it is not "finished" to your level of satisfaction, committing your layout to a tour is a great incentive to rejuvenate your enthusiasm and make some progress on your pike. Besides, we like to see works in progress so we can dream and learn too.

*Contributors to this issue:  
Bill Schimmelman, Jeff Otto, Leone &  
Tom Mauszycki, Arthur Hill, Dave  
Hamilton, Ron Bodin, and Jim Bernier*

**THANKS!**

*Deadline for next issue:  
July 9, 2007*



# Tame That Tsuper Tsunami!

by Jeff Otto

**Editor's Note:** This is the concluding article of a two part series. An article describing the virtues of back-emf on model railroad engine performance appeared in the previous issue of the Crossing Gate.

The SoundTraxx Tsunami DCC sound decoder raised the bar on sound quality for our favorite steam engines (so far). The richness of its 16-bit sound is especially noticeable on whistles and bells. The Tsunami (sue-NAW-mee) also has a sophisticated set of motor control capabilities. Let's focus on the motor control features, as they are very similar to those of Digitrax SoundFX, LokSound, and QSI sound decoders (with the QSI upgrade chip), as well as some Digitrax and Zimo silent decoder models. Lenz also makes excellent back-emf decoders. Their Gold and Silver series are not sound but are easier to tune and perform better in some respects than the other back-emf implementations so far. All offer significantly better motor control than non-back-emf decoders. (See previous article on "Dream Engine Performance is a Reality!")

The challenge of "tuning" the motor control to your engine is that the CVs (configuration variables) to make adjustments are not numbered in a group, but are scattered among the whole range of CVs each manufacturer may be using. Most of the various manuals do not give a very clear picture of which CVs should be set first or how they interact with each other. I have found that making a change to a CV may undo a setting that I made previously, and now I needed to go back and reset the earlier change.

What follows is my "recipe" for setting the motor control CVs in an order to that attempts to minimize the "trial and error", back and forth testing. Some trial and error testing still need to be done. Because there are so many different brands of motor, engine and gearing configurations available to us, it is nearly impossible to have a "one size fits all" decoder setup to get the best out of YOUR particular locomotive. All decoders come with a "typical" configuration that will usually let you get up and running with little or no adjustment. But taking the time to work through the fine

tuning process will usually reward you with dramatically improved performance, especially because of the back-emf capability.

So now, let's tune for performance! Some CVs were not changed but are shown for completeness - they may be of help in tuning YOUR particular locomotive.

The locomotive in this example happened to be a Sunset brass GN 0-8 class 2-8-2, made by Samhonsga, with its original can motor.



Most important steps:

1. CV217 default 3 changed to 2 (or 4). This is an undocumented fix for runaways posted by SoundTraxx on a chat group. This may be fixed by now, but early shipments were found to have caused OTHER decoder brands to start moving when a Tsunami was present. I experienced this problem and the change corrected it completely.
2. CV128 "Master Volume" default 192 changed to 150 (range 0-255). I had stop/start problems apparently due to some kind of overload. The problem completely went away when I reduced the Master Volume. It is too loud anyway if you plan to have more than one sound-equipped engine on the layout.
3. CV29 has several important pieces, each using one of the 8 bits

to switch the feature on or off. The bit addresses are 0-7. Rather than repeat lengthy detail here, refer to the decoder documentation and your DCC system manual for dealing with this CV. Some systems read bit 0-7 as 1-8.

The highlights are:

- a. CV29 bit 0, value 0 is normal, changing to the value 1 reverses the motor direction to account for wiring the motor backwards. I recommend reversing the wires to the motor instead because changing this bit setting can confuse matters later when making MU consists and when wiring and controlling lights.
- b. CV29 bit 1, value 1 puts the decoder in 28 and 128 speed-step mode. Do not change.
- c. CV29 bit 2, value 1 enables recognition of DC power. Change to 0 to turn this off and reduce the risk of run-away engines on DCC.
- d. CV29 bit 4, value 0 ignores speed table capability. Change to 1 to activate speed table CV25 (needed for Trim adjustments later).
- e. CV29 bit 5, value 0 will change to 1 if you assigned an Extended Address (above 128) to the decoder.

4. CV25 "Speed Curve" value 0 needs to change to select the shape of speed curve you desire. Value 11 is a mild exponential curve that increases fine throttle control at low speeds and reduces it at higher speeds. This is helpful for finer speed control for starting and for slow speeds such as switching maneuvers. Value 2 is linear, making voltage changes directly proportional to throttle changes.

5. CV66 "Forward Trim" value 128 (range 0-255) represents full forward voltage range. Setting to 90 reduces max. forward speed to 90/128 of full voltage.

**Continued on page 9  
Tsuper Tsunami**



# Modeling Tips & Tricks

## PEELING PAINT, THE EASY WAY

By Gerry Leone, MMR

Here's a quick and easy way to model paint peeling from a sign that's been (supposedly) painted on brick. In my example, I'm using decals.



Figure 1

Figure 1 shows the dry decal on the side of a brick building. The first step is to use an X-acto knife to cut the horizontal mortar lines into the decal once it's dried. (Don't bother with the vertical mortar lines - too much trouble!) Then use Solva-Set or Micro-Sol on the decal again to get the cut decal to settle into the mortar lines.



Figure 2

Next, take some of the same color paint you used on your bricks and lightly stipple and drybrush it here and there on the decal, as shown in Figure 2. Be random, be uneven, and be light with the touch.

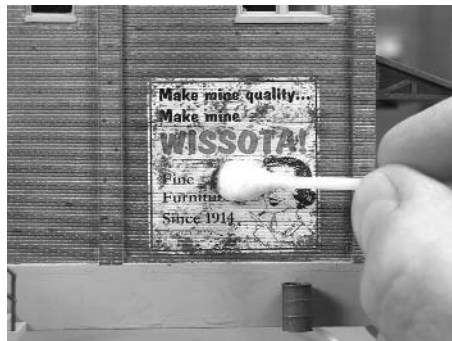


Figure 3

Put some black chalk on a Q-tip and lightly rub it over the decal, just to "dirty" it up a little. (Figure 3)



Figure 4

Figure 4 shows the final billboard, which, in person (and in color) is a great representation of peeled paint.



Figure 5

The closeup in Figure 5 shows it works on painted signs of all types!

### MEETING OTHER RAILROADERS



In an effort to try to get more fellowship among the membership, it was suggested that we introduce one another through the Crossing Gate.

How about you--do you know many members? Let's find out.



**A**

Phil Hartley



**B**

Dave Hamilton



**C**

De Smith Lindeen



**D**

Walter Thompson



**E**

Steve Nitti



**F**

Tim Klevar

Match the photo with the person:

1. \_\_\_\_\_ First Paymaster of the TCD
2. \_\_\_\_\_ Board Member, Achievement Program
3. \_\_\_\_\_ "The Enforcer" Don't Touch the Models!!!
4. \_\_\_\_\_ Paymaster & Web Master
5. \_\_\_\_\_ Member who commutes from Isanti, MN
6. \_\_\_\_\_ Member from St. Paul, hosting a layout tour in April

Answers to last issue's puzzle:

1. H, 2. E, 3. D, 4. G, 5. C, 6. A, 7. B, 8. F, 9. Bill Schimmelman and Arthur Hill

# Spring 2007 Layout Tours

Saturday May 5, 2007. 1 pm to 5 pm

Please follow the rules...we are guests in people's homes!!!! TCDivision members ONLY plus 1 guest. ♦ Be ready to show your TCD membership card ♦ Sign the guest book. ♦ Be courteous! ♦ Don't arrive before 1:00 pm or stay later than 5:00 pm. Leave coats outside the layout room (Save the scenery!). ♦ No smoking. ♦ Please do **NOT** touch!!!!!!!

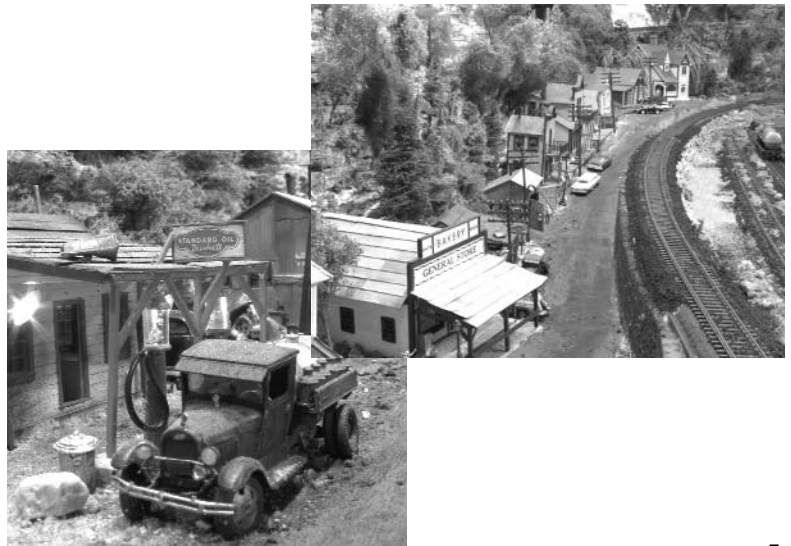
1. Arthur Hill's Layout
2. Dave Zuhn's Layout
3. Walter Thompson's Layout

## Art Hill Sublime to Redikulus Railroad

24' x 10' HO layout, ½ finished.

The prototypes for the Sublime to Redikulus are the memories in my head. Thus the road runs from the Mt Sublime logging camp in Northern Minnesota through Silver creek tunnel (now for trains), through the river valley near Winona, the farm land of Southern Minnesota to the New Mexico rock hound country, across Yellowstone Canyon to the Mt Redikulus mine in the heart of the Arizona Mining country.

My interest is in super-detailed diorama type scenes of each of these areas with about a third of them sort of finished, including the logging camp, the river tow, pheasant hunting, and some of Yellowstone canyon including Yosemite Falls. I have a dozen different kinds of trees I am experimenting with and look forward to discussing tree and forest construction with other like-minded modelers. I am also trying to learn how to use Styrofoam for mountains and cliffs. I am getting used to DCC and have put sound in one of my brass engine.

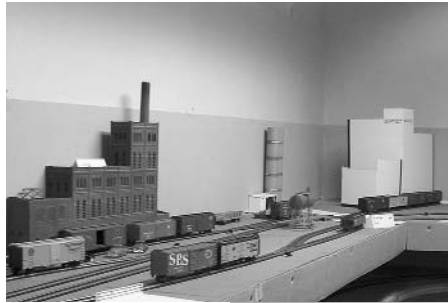


## Dave Zuhn

23' x 35' HO layout

Dave has a large multi-level, walk-around HO scale layout modeling a true switching operation serving the St. Paul area. Dave's layout has been on the tour before and has made some good progress. This is a point-to-point operations layout with an emphasis on switching. Dave's era is the fifties and he operates a mix of steam and first generation diesels.

Dave and his crew operate under prototype practice of the NP, Great Western, and Rock Island rules. He has done a significant amount of research and visitors will appreciate his commitment to being true to the prototype.



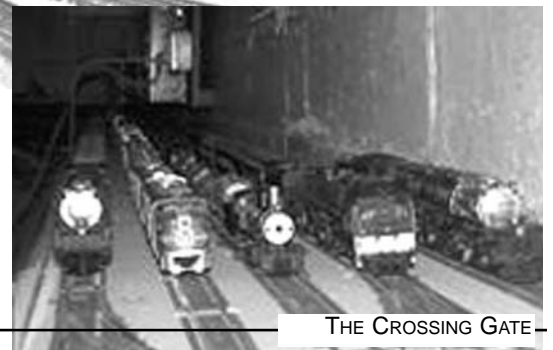
## Walter Thompson

What you'll see...

An HO freelanced shelf layout--mostly steam. A CPU panel of the layout, showing turnouts, signals and the location of trains. A little scenery. Some signals that display train orders. And, lots of trains running, not just in circles but through turnaround loops. A passenger train 12 cars long. Some crude track work. Trains running. Oh I already said that. And, an example of how NOT to wire a layout. But mostly you'll see trains running. Maybe six at a time.

The layout is controlled by Digitrax DCC with Java Model Railroad Interface (JMRI) software.

There are photos of the construction process on my WEB site at <http://home.earthlink.net/~wsthompson>



# STEAMIN' TO WINONA:



## 2007 TLR Convention

by Leone J. Mauszycki and Thomas E. Mauszycki, MMR

This year's annual TLR Convention will be held in the beautiful town of Winona, Minnesota, along the banks of the Mississippi River. Here's a listing of the events planned for the week. Use the Registration form on the next page (or photocopy it) to sign up for what looks like a spectacular convention!

### Thursday, June 7 (Optional)

This is a "bonus" day.

#### Afternoon

Attendees will drive their own vehicles but will visit the following sites as a group, departing at 12:45:

- o Railroads sites within a 15 mile radius of Winona
- o Railroad Industries o U. S. Lock and Dam #6 - Trempealeau, Wisconsin A tour of the operations of this Federal waterway facility.

#### Evening

- o Dinner at the historic Trempealeau Hotel (not included in Registration fee; order from the menu) with double track BNSF main line track traveling along the edge of the property (less than 200 feet away) and a view of the railroads on the Minnesota side of the Mississippi River.
- o Layout tour: BNSF Idaho Falls Subdivision - observe this mammoth operations layout in Trempealeau. Long coal drags with Distributed Power Units. At the crest of the summits, you'll even see the slack in certain portions of the consist. Ten operators are employed at any one moment. Digital images are at RiverRail.com.

### Friday, June 8, 2007 - Regular

Registration at the Holiday Inn (opens at 8:00) Attendees will drive their own vehicles but will visit the following sites as a group:

#### Morning

- o Photograph the eastbound Amtrak No. 8 at the Winona station near Franklin Street
- o Layout tour at the Watkins

Museum & Company Store (structures depicting Winona)

- o Model Railroad shopping excursion to the Ace Hardware Center for spectacular discounts.

#### Afternoon

- o Biesanz Stone Quarry tour
- o A selection of several additional railroad industries: Badger Equipment Company (Burro and Little Giant Cranes), RailMate, River Grain Terminals (Rail, truck to barge facilities)

#### Evening

- o Social hour on the veranda of the Holiday Inn Hotel & Suites (order from the menu)

- o Program (beginning in the early evening) includes "Steam On The Mississippi

Remembered" (Douglas D. Johnson), and "Unusual Rolling Stock" (Douglas D. Johnson)

- o Board of Directors Meeting (9:00pm)At 9:45 a.m. we'll have a great opportunity to photograph Amtrak Train #8.

With the sun at our backs, every shot will be a winner.

Contest models and photographs will be registered in the fully secured Rivers Room. Entrants are encouraged to register their models early. The "Steaming To Winona" convention committee encourages model and prototype photos to include figures depicting employment and life on the railroad.

### Saturday, June 9th, 2007 - Regular

#### Morning and Afternoon

Clinics (9:00 a.m. to 4:00 p.m.)

- o Biesanz Stone Company by Thomas E. Mauszycki, MMR

- o C&GW Railroad, CMSt.P&P Railroad and C&NW Railroad in the Winona Area by John Luecke

- o CMSt.P&P Railroad Rib Side Cars by George Schmidt (Rib Side Cars)

- o Electronic circuitry for safety and signaling with dioramas by Gene Olswold (Cir-Kit Concepts, Inc.)

- o Scratchbuilding an Express Refrigerator by Lester J. Breuer, MMR

- o History of Railroads in Winona by William Kuhl
- o Steam Sound Decoders and Programming by Evonne and Dennis Gapinski (Lok Sound)

More may be added in the coming months!

#### Non-Rail

(10 a.m.) Maritime Museum of Minnesota (Admission fee is included in your registration). Luncheon outdoors along the river.

(Approximately \$6.00 to \$8.00 per person. You will pay the Museum.)

Afternoon activities include a visit to Sugar Loaf Antiques & Crafts - 35,000 square feet across from the Convention Hotel. 90 exhibitors.

More activities are being added.

#### Evening

Dinner aboard the Julia Belle Swain Steam Paddleboat Boarding is at 5:00 p.m. and returning at 9:00 p.m.

We plan to be traveling along the west shore of the Mississippi River when northbound Amtrak #7 passes. Dinner will be served in the main saloon. You may want

to wear some railroad related costume. Models and Photos with the awards will be on display from 9:30 p.m. to 10:30 p.m. for viewing. Models may then be removed. The TLR Photo Displays would like to recognize individual railroad employees in their positions and/or roles with the railroad industry.

### Sunday, June 10th, 2007 - Regular

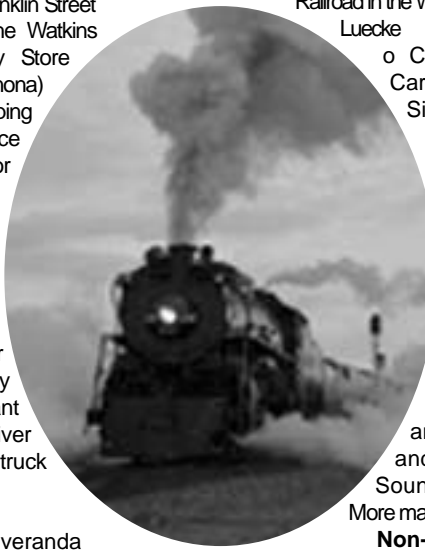
General Membership Meeting at 8:00 a.m. Breakfast Buffet is included in your registration Chinese Auction (see last issue of The Fusee for details) Layout Tours (beginning at noon; you will drive your own vehicle) o Lake Superior & Pacific Railroad (HO) -- A point-to-point operation featuring a loop design and complete scenery o Iron River Railroad (G) -- Narrow gauge dogbone design with DCC o Stone Street & Western Railroad (1" gauge) o Other layout tours may be added before the convention

Remember: you'll get spectacular discounts on all model railroad equipment at the Ace Hardware Center throughout the convention. It's a scratchbuilder's paradise!

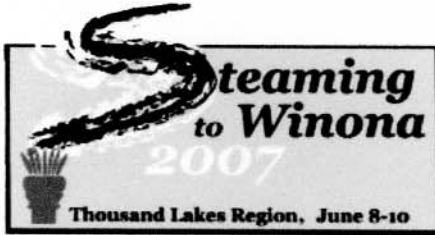
Location: Holiday Inn Hotel and Suites  
Convention Chairpersons: Leone J. And Thomas E. Mauszycki  
E-mail: tmauszycki@charter.net  
Telephone: 507-454-3800



<http://www.julabelle.com/cruises.htm>



Copyright Jeff Comfort, 2003  
<http://host.261.com/cgi-bin/displayimage.php?album=raindom&cat=0&pos=30>



# REGISTRATION FORM

**Note:** you must be a member of the National Model Railroad Association to attend. Membership will be checked. If you used an NMRA "Rail Pass" membership to attend last year's convention, you must sign up for full NMRA membership to attend this year. If you haven't been an NMRA member for at least 3 years, you will be issued a "Rail Pass" membership for an additional \$10. See below.

at the Holiday Inn Hotel & Suites  
 Winona, Minnesota 55987  
 507-453-0303

Name \_\_\_\_\_ NMRA Number (Required) \_\_\_\_\_

TLR Spouse or Guest Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State/Province \_\_\_\_\_

Zip/Postal Code \_\_\_\_\_

Telephone Number \_\_\_\_\_ E-mail \_\_\_\_\_

**HOTEL:** Contact the hotel to reserve your room: Holiday Inn Hotel & Suites, Winona, MN by calling 507-453-0303. Each room has two Queen-size beds or one King-size bed with a Queen pullout. Special price: \$119.99/night. Use code "TLR." A block of rooms has been reserved at this price until 5/11/07.

	Received by May 1, 2007	Received after May 1, 2007
<b>"Steaming to Winona"</b>	<b>\$95.00</b>	<b>\$105.00</b>
NMRA "Rail Pass" membership charge (see note above)	<u>add \$10.00</u>	<u>add \$10.00</u>
<i>Registration includes admission to the Maritime Museum of Minnesota, Dinner Cruise with Prime Rib Entree, and Sunday Morning Buffet.</i>		
How many plan to take the Thursday Afternoon Tour? (Begins at 12:30pm)	Number	_____
How many plan to take the Friday Afternoon Tour? (Begins at 12:30pm)	Number	_____
How many plan to take the Maritime Museum of MN Tour? (Begins at 10:15am)	Number	_____
How many plan to attend the Maritime Museum of Minnesota Noon Luncheon? (outdoors along the river; approximately \$6.00 to \$8.00 per person; you will pay the Museum)	Number	_____

*If you have any questions pertaining to the Dinner Cruise or the Tours, contact Tom Mauszycki. See below.*

**Mail the completed form and payment to:**

**Thomas E. Mauszycki, MMR**  
**"Steaming to Winona"**  
 1671 Valley View Drive  
 Winona, Minnesota 55987 - 6221

**E-mail Address: tmauszycki@charter.net**

**Telephone: 507 - 454 - 3800**

**Continued from page 3**  
**Tsuper Tsunami**

CV95 Reverse Trim value 128 (range 0-255) represents full reverse voltage range. Setting to 60 reduces reverse speed to 60/128 of full voltage. Steam engines normally weren't run in reverse



as fast as forward, so this gives even finer low speed control when backing up.

6. CV3 "Acceleration Rate" value 0 (range 0-255) provides no momentum delay. Change to 8 for a mild delay that also acts to smooth out the quick reaction back-emf is capable of doing.

7. CV4 "Braking Rate" value 0 (range 0-255) provides no stopping momentum delay. Change to 3 or similar value that is less than what you desire for acceleration because engines usually can stop more quickly than they can accelerate, and again some is desirable to smooth out the back-emf reaction. With back-emf, you will have very precise speed control and when reduced to about 1 scale mph, most of the momentum will have been dissipated so

that you will be able to stop very precisely in the middle of an uncoupling magnet, for example.

Less important but adds more refinement:  
 8. CV12 "DC Available" value 1 (range 0-1). Change to 0 when planning to run on DCC only.

9. CV2 "Start Voltage" value 0 (range 0-255). I nudged this up to 1 to partially compensate for start-up delay (lag) caused by reducing the Trim values.

10. CV212 "BEMF Intensity" value 255 (range 0-255). Keep at maximum for steam engines (which are more susceptible to mechanism binding through turnouts, etc.).

11. CV10 "BEMF Cutout" value 0 (range 0-255). No change is required for engines that are normally run by themselves. This is useful for reducing the back-emf effect at higher speeds if you see double-headed engines bucking against each other because their speeds aren't perfectly matched.

12. CV209 "P Gain" value 25 (range 1-255) Trial and error. The manual says try incrementing the value until the motor runs rougher, then back off to a prior setting. Mine ran a little better at 60 and deteriorated above that.

13. CV210 "I Gain" value 20 (range 1-255) ...another mystery CV that seems to affect the "snappiness" of the back-emf correction. Too much makes the motor overcompensate resulting in jerky action. Mine seemed to like 10 best.

14. CV213 "Motor Sample Period" value 15 (range 0-31). This involves how often the back-emf circuit needs to check the motor considering the flywheel-effect of the motor. Mine liked 10 a little better than 15.

15. CV214 "Sample Gain" factor value 15 (range 0-255). I tried a couple changes but saw no effect, so left it unchanged.

Working through these steps, virtually all of your back-emf equipped engines should be able to start at and maintain a steady 1/2 to 1 scale mph pace, and remain steady at any higher speed you desire to run at. Enjoy!

## Subscribe or renew NOW!

Send \$10 per year (two year max) to:  
 Twin Cities Division,  
 PO Box 2065  
 Maple Grove, MN 55311

Enclosed is \$ \_\_\_\_\_ for \_\_\_\_\_ year(s)

New subscription [  ] Renewal [  ]

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City/State/Zip \_\_\_\_\_

Email: \_\_\_\_\_

Home phone: (\_\_\_\_\_) \_\_\_\_\_

Preferred Modeling Gauge(s) \_\_\_\_\_

If you belong to the NMRA, please include your membership number \_\_\_\_\_

**For updates, visit our website at:**  
[www.twincitiesdivision.org](http://www.twincitiesdivision.org)



## TCD Timetable

**THURSDAY, Apr. 12, 2007 6:45 pm**

**Note: Change in topic.**

CLINIC (BOTH SESSIONS) The Building Guy - Neil Hovind

POPULAR VOTE MODEL CONTEST - - Whimsical Railroads / NMRA Merit Point Judging

**WEDNESDAY, May 9, 2007**

**7:00 pm social hour in the bar, 7:30 dinner, meeting and drawing.**

ANNUAL BUSINESS MEETING & DINNER

**Note: Change of date, time and location to Old Spaghetti Factory on Park Avenue @ Washington Avenue**

# NMRA Achievement Program and You



by *Dave Hamilton*

It has been almost a year since the last TCD clinic or Crossing Gate article about participating in the NMRA Achievement Program. Since I am the TCD AP contact person, I'd like to remind everyone that participating in the program can add another dimension to the model railroading experience. As you all probably know, during the past few months one of our TCD members, Lester Breuer was awarded the Master Model Railroader certificate. Another MMR was awarded to Tom Mauszycki, who is a TLR member and occasional merit award judge at various TCD meetings and Twin Cities train shows. In addition, our TCD treasurer, Tim Klevar has applied for the Association Volunteer certificate. During the past year we also awarded Golden Spike awards to four of our TCD members, Steve Nitti, John Thomas, Bill Schimmelman and Jeff Otto.

## Golden Spike Award

Participation at the most basic level, the Golden Spike Award, is the easiest way to get started, so let's give it a quick review.



If your layout meets the following requirements and if you currently are an NMRA member, you can qualify. The requirements, as described on the NMRA website, ([www.nmra.org](http://www.nmra.org)), are listed below:

Construct a minimum of eight (8) square feet of layout.

Display six (6) units of rolling stock (Scratchbuilt, craftsman, or detailed commercial kits).

Construct five (5) structures (scratchbuilt, craftsman, or detailed and commercial kits). These structures may be separate, or one or more of them may be part of a single scene.

Three (3) types of trackage are required (turnout, crossing, etc.). All must be properly ballasted and installed on proper roadbed. Commercial trackage may be used.

All installed trackage must be properly wired so that two trains can be operated simultaneously (Double-track main, single-track main with sidings, block or command control, etc.).

Provide one additional electrical feature such as powered turnouts, signaling, turnout indication, lighted buildings, etc.

As you can see, the requirements for the

Golden Spike are very basic and do not require merit award judging. The forms are on the NMRA website, or you can contact me - I will bring the paperwork to your home, "witness" the information and even provide the envelope and stamp.

## Master Model Railroader

If you are ready to move it up a notch to the AP level, this would be a good time to get started. The NMRA describes the AP program as a "travel guide" through the

world of model railroading. No passports or shots are required. Put another way, the "AP is a system of requirements for demonstrating a superior level of skill in



various aspects of the hobby". There are a total of 11 different AP certificates listed below that can be awarded. The program covers building different types of models, wiring and other electrical skills, scenery construction and even operating a model railroad. It covers service to the hobby and the NMRA as well. AP certificates for volunteer, author, dispatcher, official and electrical require no merit award judging. If you meet the requirements and fill out the proper AP Statement of Qualification forms, you will be on your way. Participation in the Achievement Program qualifies an NMRA member to become a Master Model Railroader - if 7 of the 11 AP certificates are earned.

One of the best ways to start working on the program is to qualify for the AP certificate as an Association Volunteer. You don't even have to have a layout or build any models for this one. If you have ever been an officer (or would like to be) of the TCD or any NMRA division, worked in an NMRA sponsored event or plan on doing so in the future, you can start accumulating volunteer points. The requirements for the Association Volunteer certificate are as follows: Have served actively on one or more NMRA committees (National,

**Continued on page 11  
Achievement Program**

# Railfan & Hobby Show CALL BOARD

COMPILED BY JIM BERNIER

March 31, 2007 - **Greater Upper Midwest Train Show, 9-2**, Admission: \$4.00, Location: Century College, 3300 Century Ave N, White Bear Lake, MN, For more info - Tom Jefferson 651-429-2885

April 14, 2007 - **Newport Club - Woodbury Flea Market**, 10-3, \$4. Location: Woodbury Senior High School Woodbury, MN For More Info: Stan Whitingham 952-200-9729

May 18-20, 2007 - **C&NW Historical Society Convention**, Location: Huron Event Center and Crossroads Hotel, Huron, ND, For More Info: www.cnwhs.org

May 20, 2007 - **C&NW Historical Society Flea Market**, Admission: \$2 - General Public, \$10 - Tables, Location: Huron Event Center and Crossroads Hotel, Huron, ND, For More Info: Terry Davis (320) 587-7820 www.ptdavis@hutchtel.net

May 19, 2007 - **Twin City Model RR Museum Hobby Sale**, 9-3, Admission: \$4.50, Location: Minnesota State Fair Grounds Education Building

June 8-10, 2007 - **Steamin' to Winona (NMRA-TLR Convention)**, Location: Holiday Inn Hotesl & Suites, Winona, MN. For more information: Tom Mauszycki (507) 454-3800

July 21, 2007 - **Great Tri-State Rail Fair**, Admission: \$3.00/ under 12 free, Location: Copeland Park, La Crosse, WI, For more info - (608) 582-4761 or (608) 784-0036, www.lacrosseshortlinerr.org

July 7, 2007 - **Fourth Annual Kid Day Train Show**, 11-4, Admission: \$2.50, Location: National Guard Armory, Benson, MN. For more information: Randy Thoen (320) 762-8840 or lanrra@yahoo.com

July 28-29, 2007 - **Lakes Area Greater Minnesota Train Show & Sale**, 9-5 Sat, 10-4 Sun, Location: Central Square Cultural Center, Glenwood, MN For more information: Randy Thoen (320) 762-8840 or lanrra@yahoo.com



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Eugene Meisner 204-487-0655



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www.trainride.org

Expires April 1, 2008

## Continued from page 10 Achievement Program

Regional, or Division) long enough to accumulate sixty (60) certified time units (TUs). The TUs you receive for various types of service are listed below:

1. Active satisfactory service as a General Manager of a National committee: 4 TUs per month.
2. Active satisfactory service as a National committee Manager: 3 TUs per month.
3. Active satisfactory service as a Region committee Manager, or on a National committee: 2 TUs per month.
4. Active satisfactory service as a Region committee member, a Division Officer or committee Manager: 1 TU per month.
5. Active satisfactory service as a Division committee or board member: 1/2 TU per month.
6. Editors of an NMRA publication shall receive credit at the rate appropriate for committee Chairmen at the same level. Now that the secret is out, we should begin to have plenty of volunteers for our next TCD Officer election.

The AP certificate for Master Builder: Scenery, Model Railroad Engineer: Civil, Master Builder: Structures, Master Builder: Cars, Master Builder: Motive power and Master Builder: Prototype models, all require merit award judging. For example, one of the AP requirements for Master Builder: Cars is as follows: You must build eight operable scale models of railroad cars. You must earn a score of at least 87-1/2 points on four of the eight models in either an NMRA sponsored contest or in

AP Merit Award judging. Once again, the entire list of requirements for each of the certificates is spelled out in detail on the NMRA website.

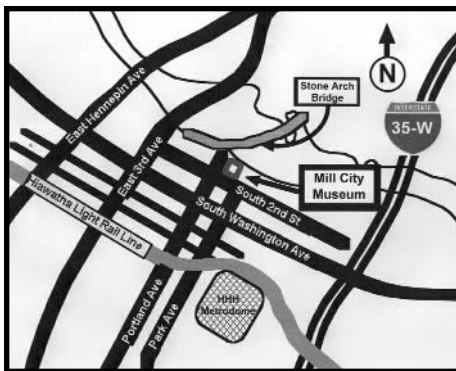
If you are interested in one of the AP certificates that require merit judging, it is best to take your models to an event that offers merit judging, but keep in mind that you do not have to bring your models to an NMRA show. In some instances, the judges can visit you. That would certainly be the case if you were interested in the Master Builder: Scenery certificate, unless for example you had built your railroad inside of a trailer and you could bring it to a qualified NMRA judge. (an HO layout would require a section of 32 square feet of finished scenery).

There is a certain amount of paperwork or documentation that has to be completed for any of the AP certificates. The documentation is not unreasonable and if done in a logical way, is not difficult. There are numerous articles, websites and checklists with examples of what needs to be done, and the best way to go about accomplishing the task. If you have Internet access, in addition to the NMRA website, you will find a very informative reference at <http://home.earthlink.net/~gerryleone/trains.htm>. This is Gerry Leone's website. It has a link that reviews the various procedures that Gerry used in his pursuit of the Master Model Railroader award. In addition, there is an excellent article in the November 2006 issue of Scale Rails that describes Steven Priest's path to the MMR. Now that I have written this article, I guess it's time that I get started on the paperwork for a few of my own.

**THE CROSSING GATE**  
 Twin Cities Division, TLR, NMRA  
 PO Box 2065  
 Maple Grove, MN 55311

Next meeting:  
 April 12, 2007  
 at 5:45 pm for dinner  
 at 6:45 pm for clinic only.

Where:  
 Mill City Museum  
 704 South Second Street  
 Minneapolis, MN 55401  
 612-341-7555  
[milcitymuseum.org](http://milcitymuseum.org)



## Local Twin Cities hobby shops & sponsors

*The listings in bold are sponsors of the Twin Cities Division. Show them your support!*

Beaumont's Quality Tools  
 3539 West 44th Street  
 Minneapolis, MN 55410  
 (612) 922-1954

**Becker's Model Railroad Supply**  
 2166 Silver Lake Road  
 New Brighton, MN 55112  
 (651) 635-9480  
<http://members.aol.com/wcbecker>

**Choo Choo Bob's**  
 2050 Marshall Avenue  
 Saint Paul, MN 55104  
 (651) 646-5252

Dad's Trains  
 2647 Co Rd 22 NW  
 Alexandria, MN 56308  
 (320) 763-6545  
[bryants4@rea-alp.com](mailto:bryants4@rea-alp.com)

Douglas Designs  
 4120 Yosemite Ave. S.  
 St. Louis Park, MN 55416  
 952-926-7164

**Hobbytown USA**  
 7916 Brooklyn Park Blvd.  
 Brooklyn Park, MN 55445  
 (763) 424-5900  
[http://www.hobbytown.com/zcl/detail.html?zcl\\_info\\_id=14](http://www.hobbytown.com/zcl/detail.html?zcl_info_id=14)

**Hobbytown USA**  
 11319 Highway 7  
 Minnetonka, MN 55305  
 (952) 931-2262  
[http://www.hobbytown.com/zcl/detail.html?zcl\\_info\\_id=15](http://www.hobbytown.com/zcl/detail.html?zcl_info_id=15)

**Hobbytown USA**  
 1750 Weir Drive  
 Woodbury, MN 55125  
 (651) 702-0355  
[http://www.hobbytown.com/zcl/detail.html?zcl\\_info\\_id=73](http://www.hobbytown.com/zcl/detail.html?zcl_info_id=73)

**Hobby Zone**  
 1960 Cliff Lake Road Suite 115  
 Eagan, MN 55122  
 (651) 905-9523  
<http://hobbyzone.com>

**Hub Hobby Center**  
 82 Minnesota Ave.  
 Little Canada, MN 55117  
 (651) 490-1675  
<http://hubhobbycenter.com>

**Hub Hobby Center**  
 6416 Penn Avenue S  
 Richfield, MN 55423  
 (612) 866-9575  
<http://hubhobby.com>

Ill Rail Trains  
 535 Northdale Blvd. NW  
 Coon Rapids, MN 55448  
 (763) 767-9545

Minnesota Transportation Museum  
 193 Pennsylvania Ave. E.  
 St. Paul, MN 55101  
 (651) 228-0263  
<http://www.mtmuseum.org>

**The N Shop**  
 3956 Lyndale Avenue N  
 Minneapolis, MN 55412  
 (612) 521-8909

Northern Scale Models  
 PO Box 27354  
 Minneapolis, MN 55427  
 (763) 475-0647  
<http://www.northernscale.com/>

**Only Trains**  
 7780 State Highway 55  
 Rockford, MN 55373  
 (763) 477-6186 or (800) 789-5738

**Osceola & St. Croix Valley Railway**  
 P.O. Box 176  
 114 Depot RD  
 Osceola, WI 54020  
 715-755-3570  
<http://www.trainride.org>

Osseo Train World  
 340 Central Avenue  
 Osseo, MN 55369  
 (763) 425-7171

Prairie Works Productions  
 6300 Sequoia Circle  
 Eden Prairie, MN 55346  
<http://www.prairie-works.com>

**Scale Model Supplies**  
 458 Lexington Parkway  
 Saint Paul, MN 55104  
 (651) 646-7781  
<http://www.scalemodelsupplies.com>