



The New Look for NTRAK Layout Wiring



Just as the NTRAK Wiring and Connector group was resting up from the Powerpole connector Recommended Practice project, the changes in the Fire Codes that the Fire Marshals work by caught up with us.

In this issue, are what has been worked out as a solution. With these guidelines, clubs will know what they could do (or could have done!) to pass a Fire Marshal inspection.

Recent changes in the Fire Codes ban hooking together (“Daisy Chaining”) power strips or extension cords. Having power strips on each NTRAK module has been the key element of our power distribution plan for over 20 years.

The photo above shows examples of the main components needed now to get power to

an NTRAK layout in a public building. Plugged into the wall outlet is an optional “GFCI” (Ground Fault Circuit Interrupter) in the form of a unit that plugs into the outlet and has a short three wire, heavy duty cord. The Commercial Grade “Relocatable Power Tap” (what we have called “Power Strip”) plugs into the GFCI cord. The Power Tap has a 15’ power cord, a steel body, 8 outlets with rubber covers and a 15 amp circuit breaker/switch. Triple outlet end extension cords plug into the Power Tap. All the layout items needing power then plug into the extension cords. With eight extension cords, 24 items could be powered, as long as the draw doesn’t total over 15 amps.

Details start on page 10.

JIM'S CORNER

After the Eugene, OR. NTRAK Club was called by the Fire Marshal on the 120 volt AC wiring on their modules, the NTRAK Wiring and Connector group members swung into action and in this issue are their new guidelines. A draft copy was reviewed by the Eugene Fire Marshal and accepted as a workable way to do code compliant layouts.

We will be seeking comments from other jurisdictions and the guidelines may be revised in some details as a result. Current wording will be included with copies of the NTRAK Manual and the NTRAK Module 'How-to' Book. Future printings will be brought up to date.

The Active NTRAKers on this were Doug Stuard (N. Virginia NTRAK), Martin Myers (Baltimore Area NTRAK), John Wallis (N Raleigh M R R C) and Alan Schappell (Philadelphia NTRAK). The NTRAK Advisory Group and many members offered suggestions and leads. All is much appreciated.

Not covered fully in the present guidelines, is what the modeler who is using a lot of 120 V AC on their module is to do. Several such modules in a club could share a commercial power supply that furnishes 14/16 V AC and about 5 amps. The suggested grey/black color coded buss could distribute power to these modules. It can be used directly for lighting and converted to DC for motors and local throttles. Items that can't be converted to lower voltage, would plug directly into Heavy Duty extension cords, either single outlet or triple outlet type. More than one extension cord might be needed. The cords would plug

into a "Relocatable Power Tap" (Power Strip) that in turn is connected to the building power feeds.

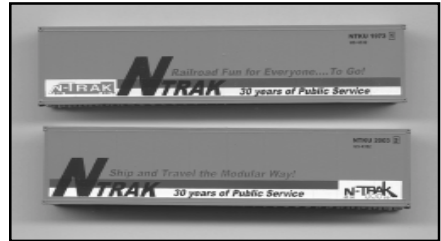
See page 10 & 11 for more details and check:

www.ntrak.org for the current guidelines.

2007 National Train Show NTRAK Layout

The 2007 NMRA National Convention will be held in Detroit, MI. If you are interested in having modules in the big NTRAK layout at their National Train Show, please contact Mark Cowles of the Lansing, MI LaNtrak club. They are a small club and will appreciate help in gathering modules and coordinating the layout.

Mark Cowles <nkpcowles@yahoo.com>



Special Sale!

Our year end inventory showed that we still have some of the beautiful 30th Anniversary containers. We are now offering them at \$14.00 per pair, including postage. See page 26.

NTRAK, Inc Officers

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Next Issue Deadline: Aug. 1st

Deadline for Coming Events & other material is the 1st of the month before publication.

(Feb 1st, Apr 1st June 1st,
Aug 1st, Oct 1st, and Dec 1st.)

NEW N PRODUCTS

New From Micro-Trains®

The 50', 1963 Container Corp. of Amer. car had nailable steel flooring to block pallets of paper rolls. Black & Silver MT# 031-00-210 is \$23.75, TLDX 20.



The 1966, 50' plug and sliding door red car had white lettering for Rock Island, #63290. MT# 076-00-070 is \$19.15,



A 1980 Smokey Bear poster is used on this 50' box car in the MT "Prevent Forest Fires" series. MT #032-00-404 is SBX 1980A and \$18.35.



This 33' H-5 twin hopper made up the bulk of the Western Maryland fleet. MT # 056-00-110 is boxcar red with white lettering and is \$18.20.



The Vermont State car features the flag, slogan, Hermit Thrush and Red Clover. The car is #38 in the 50 car series. MT #021-00-402 is \$19.85.



Expected is the first Canadian Province car in a new series similar to the US State cars. British Columbia is the first 50' car in the 13 car series. MT #077-00-151, \$18.25.



(Beer truck not included)

Cardstock Building Kits

Kits for complex N scale buildings printed in color on cardstock are being offered by Superior Card Models:

www.superiorcardmodels.com

Mail address: 2935 S Wadena Avenue, Superior WI 54880. Tel 715 394 4028.

The models have cut out window and door openings which give depth. The windows are glazed in plastic with printed window bars. Pictured is the Brewery complex \$16.00.

Also available are:

Boilerhouse and Factory	\$10.75
Warehouse and Mill	\$10.75
Industrial Buildings	\$10.75
Bus / Truck Garage	\$13.75
Gothic style Church	\$12.50
Engine Shed	\$10.75

Check the web site for photos of most buildings. If you order by mail or phone and mention NTRAK, you will get free shipping on orders over \$25. Offer good until December 31st, 2006.

New From Atlas

Atlas is bringing out a model of the steel rebuilt USRA double sheathed box cars. In the 40's almost 14,000 of these cars were rebuilt because of the great shortage of cars during and after WWII. Both Fishbelly and Standard underframe versions are being modeled. Both styles are available undecorated. Cars made for specific prototype roads use the proper underframe. Cars feature opening doors, Andrews trucks, accurate painting and printing. The doors are simulated wood or steel, depending on the prototype. Undecorated include one of each door type.



Road names are issued with two different car numbers and include: Chicago & NW, Elgin, J&E, Pennsylvania, Santa Fe (The Chief), Santa Fe (The Grand Canyon), Texas & Pacific, Union Pacific and Vermont RR.

Delivery in Nov. 2006

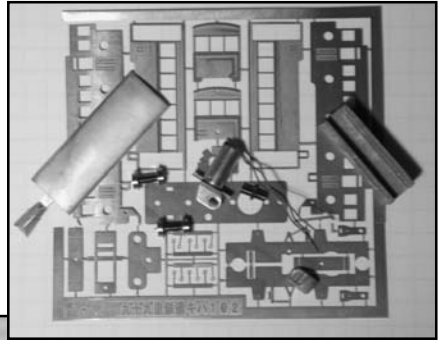
Nn3 locomotive Kits

by Tom Knapp

Recently, I was sent a few Japanese 6.5mm gauge brass kits by Hiromi Masaki. The manufacturer is "Pair Hands" and they have quite an impressive line of etched brass railway equipment. You can see their line at <http://homepage3.nifty.com/PAIRHANDS/>

Although it is a bit of a challenge to navigate as it is in all Japanese. The kits Hiromi sent me are in 1:150 scale, but look just fine for N scale. The kits are etched brass and white metal castings, with turned nickel-silver wheels and Kato molded plastic gears; the motorized cars include a pager motor, see photo. Assembly was straight-forward, using CA glue, and

the etched brass split-frame chassis design is ingenious. I included a Lenz Gold-Mini decoder and 1.5V headlamp in the rail-bus I built, shown in the photo, before painting.



One of the Nn3 Alliance members recently posted information on another interesting 1:150 6.5mm gauge locomotive, which I immediately contacted Hiromi about. This is a Japanese DD12 loco, which bears a remarkable likeness to a typical GE center-cab loco-

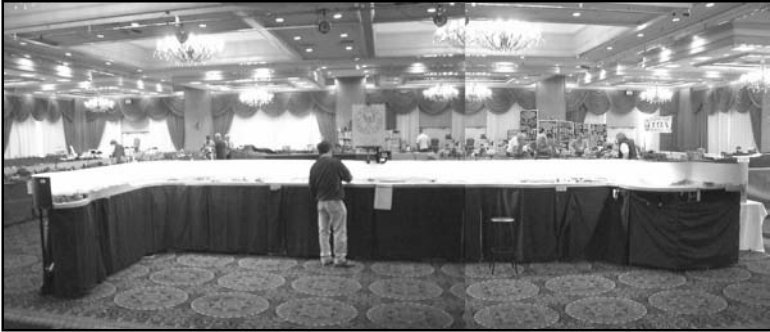
motive. It also has potential for kit-bashing an SP "Little Giant" I have ordered a couple of these from World-Kougei. (www.world-kougei.com)



DD12 loco,



SP "Little Giant

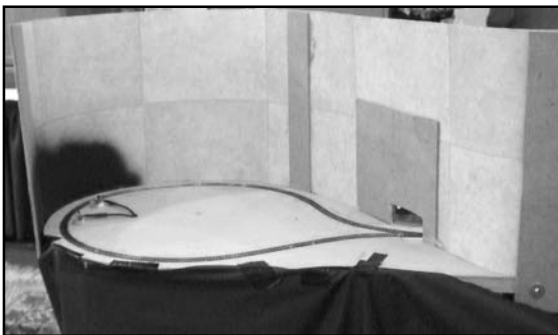


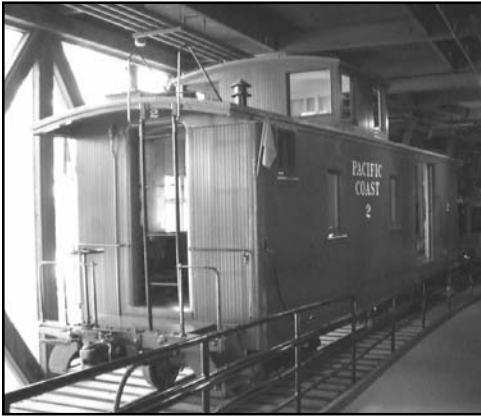
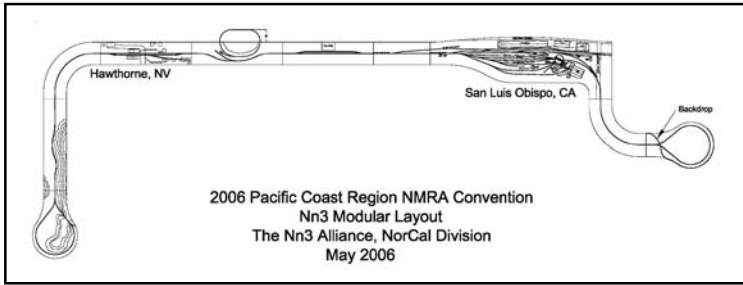
May 3-6 was the Pacific Coast Region of the NMRA's convention, held this year in Sacramento, California and hosted by the Sierra Division. Insofar as modules, I was on my own as the other members of the Nor Cal Division of the Nn3 Alliance who had modules were unable to attend. I brought 11 of my modules and, with the assistance of NorCal members Gary Orkin and Andreas Parks set up a linear layout with two reverse loops (see Figure 1.) As we usually do, I brought our own halogen lighting, which was a good thing, as the overall lighting in the hall was not bright enough for N scale models. We put skirting on both the front and back side of the modules as the layout was in the center of a ballroom, with the local On30 layout in what would normally be the back of our layout. (Photo 1.) On the last module on the right the track disappears behind a curved backdrop, traverses a reverse loop, and returns to the layout. As seen in below, the train runs past two infra-red detectors which operate the turnout as well as changing track polarity. I found that spraying

the back of the flexible linoleum backdrop with flat black paint helped the detector "see" the trains. A similar arrangement of detectors and electronics is used at the other end of the layout, although the entire loop is exposed on that end, in a rocky, desert environment.

After helping with the set-up, both Gary and Andreas stayed and helped operate the layout, which was a great help. With our resident electrical and electronics guru, Joe DuVivier, absent, of course the electronics gremlins struck. First, the electronics (designed by Joe) on the right end reverse loop quit working. Then, on the last day, the DCC quit working. We quickly switched over to conventional DC operations and continued running. Tear-down went well, with the entire layout fitting into the rear seat and trunk of my 1956 Bentley. As Ettore Buggatti said, "Monsieur Bentley builds good trucks."

On the contest side, I was fortunate enough to win First Place in Steam Locomotive Kit with my model of D&RGW No. 497, built from an Aspen brass kit. (See Aspen's website www.aspenmodel.com for details on this kit.) NorCal member Steve Wesolowski won a First for his model of a Carter Brother's ventilated box car.





One of the tours at the convention was the California State Railway Museum in Sacramento. This is a fantastic museum, and, while there, I had to visit my favorite caboose again. The photos above are of Pacific Coast Railway's Caboose No. 2, and below is of my Nn3 model of this caboose I built in the 1970s and still running!

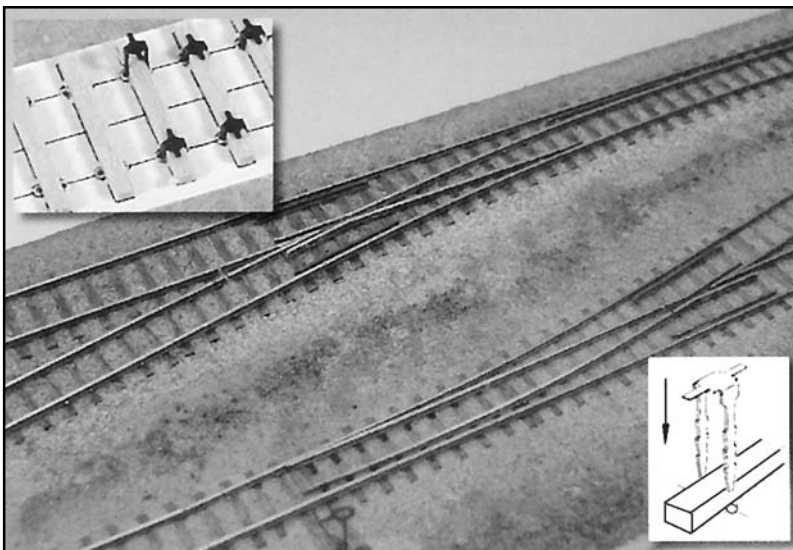


(Narrow Gauge Column continued.)

I recently received some samples of a new 6.5 gauge track system from Germany being marketed as part of the growing "N-tram" (N-narrow gauge) movement there. The track system, manufactured by the company appropriately called "N-Tram" and marketed by Hammerschmid Präzisionmodelle:

(www.hammerschmid.de) is "foreground" quality stuff. To briefly summarize, it consists of templates for drilling holes in your roadbed (lots of holes!) in which you insert a blackened brass etching which captures both wooden ties, and, by folding over two "spikes" which

are part of the etching, also captures the Code 40 rail. shows the basics of the system. The turnout kits consist of pre-formed frog and wing rails, and pre-cut and shaped point rails and stock rails, along with the spike etchings. Separate etched brass drilling templates are available for turnouts. I have not had the time to assemble any of this yet, but it is destined for a small, highly detailed diorama. Check out the Hammerschmid web site, where you will see some of the exquisitely detailed brass N-narrow gauge equipment being made in Germany, as well as some neat N scale road vehicles.



N CONVENTIONS

Denver N Scale Convention August 8-13, 2006

Come to Colorado, August 8 through 13, 2006 for the National N Scale Convention sponsored by the Denver Area N Scale Club and the N Scale Collectors. The convention will be held at the Denver Radisson Hotel, I-225 and Parker Road in Aurora, Colorado.

Many events are planned including the ride on the highest Cog Railroad in the world to the top of Pikes Peak, tours of Burnham Shops, the Colorado Railroad Museum, Cheyenne Roundhouse and yard, Georgetown Narrow Gauge Railroad, and Intermountain. A number of home layouts will be on tour including Mike Danneman's home layout of the Moffat tunnel route, Pat Lana's fine CRANDIC featuring operation with signals, John Widmar's layout with it spectacular suspension bridge you walk under, and Kent Charles' home layout built with NTRAK modules with long prototypical length coal trains.

At the show, clinics will be presented by nationally known Nscale modelers. Several model and photo contests will be conducted. There will be the normal N Scale Collector events including the Auction, Swaparama and banquet.

The show will include a 500 foot long multi-loop NTRAK layout at the show, including modules from 10 different states, and several smaller specialized NTRAK layouts including NCAT and traction.

You can register for the convention through the N Scale Collectors at nscalecollector.com, or attend the public show on Saturday and/or Sunday.

For further information go to the following websites: denvernscale.org
nscalecollector.com nscale2006@aol.com
or daugh@comcast.net

Bedford, Pennsylvania N Scale Weekend

A weekend of running trains, dealers, clinics, pig roast, auction and door prizes, will be held on Aug 24-25, in Bedford, PA The N Scale weekend will be held at the Pro Care Sportsplex, above Walmart Plaza, . Rt 30, 5 miles east of Bedford. Exit 11 off PA Turnpike. The hours will be 9-5 Sat, 9-3 Sun, and the charge is \$8 for the weekend. Contact Mike Phillips, 733 Barclay Dr, Bedford, PA, (814) 623-2239.

miknscale@yahoo.com

Factory Installed Traction Tires in the Model Power Mikado and Pacific

by Craig Barrow

Model Power has begun importing Pacifics and Mikados with factory installed traction tires. In an effort to see what the difference would be in performance I compared their pulling power with Model Power engines with the same tenders, since the locomotives come with standard and Vanderbilt tenders. The standard tenders are heavier and have truck mounted couplers, while the Vanderbilt tenders are lighter and have body mount couplers. The test track was the largest mainline on my layout; the tightest easement curves are 20" radius, and all of the curves are ascending or descending. The cars pulled were Kato passenger cars with lighting kits installed, figures added, and some interior details. A Pacific with a Vanderbilt tender could pull 11 cars around the layout without

slipping, while a Pacific with a Vanderbilt tender could pull 19 cars around the layout, a 72% improvement. The two Mikes both had standard tenders. The one without traction tires could pull 12 cars around the layout without slipping, while the one with traction tires could pull 20 cars around the layout, a 66% improvement. All track and wheelsets had been cleaned prior to the test. So far the only dealer to stock these engines has been Peter Postel of Brooklyn Locomotive Works. The stock and road number of each engine was the same; the only difference was a sticker on the box that stated, "with traction tires." I think that this is a pilot effort by Model Power, so N Scalers might indicate their approval by email, letter, or telephone. Perhaps we can get Model Power to improve their tender pick up too.

NTRAK 120 volt AC Wiring Guidelines

The NTRAK guidelines are based on the “International Fire Code”, which is one of three Fire Codes in general use in the United States and is stricter for the most part. Local jurisdictions can add additional requirements or interpretations.

In addition, there are the Electrical portions of the Uniform Building Code and material from the Underwriters Laboratories involved with the safety issues we are dealing with. In general it is the Fire Marshals who inspect public meeting places that we use for our train layouts. The Fire Codes are their main guides.

NTRAK can no longer specify “daisy chained” power strips on modules. The new guidelines can be used by clubs to meet the present Fire Code requirements.

Extension cords need to be either “Heavy Duty” 14 gauge, three conductor, often written as “14/3 ga”, or “Extra Heavy Duty” which is 12 ga or 10 ga 3 conductor wire. The 14/3 gauge extension cords can be up to 50’ in length and can have a single or triple outlet end on them or may have several outlets spaced along the length of the cord.

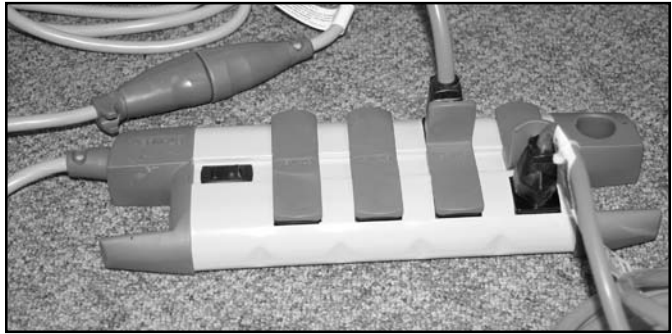
Cords over 50’ and up to 100’ in length should use 12/3 gauge wire. Note that some jurisdictions may not permit 100’ cords, no matter what wire gauge is used.

In catalogs and internet sites some list the three outlet cords as “power blocks”.

Even though they have three conductors, 16 gauge or smaller gauge wire extension cords can’t be used under the new Fire codes.

What we call Power Strips are called “Relocatable Power Taps” in the code. For our use they should have a metal case, 14/3 ga wire, 15 amp capacity and a circuit breaker. Ones with 15’ cords are preferable since they could span an aisle to get power into the layout area. Only a few expensive models have been built in GFCI (Ground Fault Circuit Interrupter). However GFCI units are available as separate, in line, units that can be plugged in ahead of the Power Tap. They seem to be acceptable used that way, but could be quickly removed if need be.

Shown below are the key units that I was able to purchase locally off the shelf. There are many sources for similar items on store and on line order web sites.



The 8 outlet unit shown is made for Stanley Works by Belkin and was purchased at Home Depot as a “duo” package with the GFCI unit for just under \$30.



The 25’ extension cord (sometimes called a “Power Block”) came from Ace Hardware and was less than \$20. It is rated as “Heavy Duty”, 15 Amp, 14/3 wire in a “SJ” type cord. Over 50’ should be 12/3 Gauge wire. Home built or repaired cords are not accepted.

Note: The following has been reviewed and accepted by the Eugene, OR Fire Marshal. Future changes will be made as needed. Jim F.

AC Power distribution on NTRAK Model Train Modules

The following NTRAK guidelines are based upon Chapter 6, Section 605 of the International Fire Code and applicable sections of Underwriters Laboratories Product Standards UL-817 (Cord Sets and Power Supply Cords) and UL-1363 (Relocatable Power Taps), and are believed to comply with most local codes. In the event of discrepancies, local codes will govern. If there are any questions, consult your local fire marshal.

1) Remove all power strips from modules. Also, remove all AC power cords and outlets from modules.

2) Use a grounded (3-wire) commercial quality power strip (14 AWG cord, preferably 15 ft long) with 15A circuit breaker to plug into an approved branch circuit wall outlet or power drop.

3) Although not required, a GFCI adapter or GFCI pigtail inserted between the outlet and the power strip is recommended. Alternately, a GFCI equipped power strip may be used in 2) above.

4) Grounded, UL approved (no home brew!) multi-outlet extension cords (triple outlet at the end, or multiple outlets along the length of the cord) should be used to distribute 120 VAC from the power strip to points of need on the layout. Extension cords should be 14 AWG minimum for up to 50 ft, 12 AWG for 50 to 100 ft.

Extension cords should be placed, wherever possible, in non foot traffic areas but not concealed or covered by equipment. Extension cords can be temporarily attached along the bottom of modules above floor using twist ties, zip ties, S-hooks, etc. No permanent attachment is permitted. Cords should not be routed through clamps and or holes in module frames. This should be done neatly.

Damaged cords should be discarded and replaced. Repairs should not be attempted.

Cords that must be placed in areas subject to foot traffic should be at minimum secured to floor along their length with tape.

In some jurisdictions, Extension cords subjected to foot or equipment traffic must be

further protected from damage:

* Cords 3/8" or less in diameter must be covered with hard plastic "office cord covers" or an approved alternate method.

* Cords larger than 3/8" in diameter must use a plywood ramp style cover, or an approved alternate method.

* All cord covers must be secured in place using tape, nails or other methods.

5) Power supplies for throttles, boosters and accessories must be off-module, either on the floor or a suitable cabinet or shelf under the layout. (This includes "wall-warts").

6) Throttle, booster and accessory power supply line cords and wall-warts should be plugged directly into the extension cord outlets. "Power cubes", multi-taps or other outlet expansion adapters shall not be used.

Low voltage power distribution:

With the loss of the ability to plug multiple wall-warts into a module mounted power strip, the more accessorized modules need a way to get power to their accessories. The following approach is therefore suggested:

1) The white line remains reserved for layout wide 12 VDC power distribution, and will continue to be used to supply DC throttles. Permissible white line usage, however, may be expanded to also include on-module 12 VDC accessories on a secondary (not to interfere) basis. Such accessories shall be easily disconnected from the white line if necessary. A Powerpole or CJ white line "T" tap to feed accessories is recommended for this purpose.

2) An optional accessory bus may be implemented within a module set or group for local accessory power (12 AWG, Gray/Black, horizontal Powerpoles, gray on the left), and may be powered with 14-16 VAC from a separate power supply or transformer as desired. On module rectifier circuits would be used if DC is needed. Note: (This bus is NOT intended for layout-wide power distribution!)

3) All low voltage supply outputs shall be ungrounded and include over current protection (fuses or circuit breaker) where appropriate.

New Kids on the Block

by Gil Brauch

There are some new kids in NTRAK Town. They are the Central Carolina N Scalers. The club has members that are scattered over a 6 county area of south central North Carolina and had their first gathering in July 2005. On April 1, 2006 they had their first public showing at the 4th Annual North Carolina Railroad Expo in Hickory, NC. The layout was a 26 x 14 oval with 17 modules, all but two of them constructed by first-time NTRAKers within the preceding 9 months. Here is their story.

Down deep in NASCAR country, where the club is located, model railroaders are scarce as hen's teeth. They (we) are here, it's just that most of us practice our lonely craft in dark basements and nondescript out-buildings and garages. Then Jim Flynn invited a small group of known N scale modelers to his house to discuss the possibility of forming an NTRAK club in the area. Six people attended the meeting and agreed to begin meeting every two weeks at each other's houses to begin the process of building modules. Of the group, only one had ever built a module before or participated in an NTRAK setup. Several members had home layouts, so the modeling skills were there; they just weren't transportable yet.

The club itself was not established until the second meeting, July 31, 2005, when we elected officers and adopted a set of bylaws and began serious discussions of the type and number of modules we needed. Our first decision was to build two end loop modules instead of corners, but after further research we decided that four corners was the way to go for starters. The members at that first meeting were: Dan Alexander, Daniel Alexander, Jr., Kevin Beck, Gil Brauch, Robin Eanes, and Tommy Sansbury. Since that time, Anthony Greenard, Jim Jesse, and Scott Teague have joined the club. Chad Benoist, Jake Helms, and Jon Myers are our associate members.

Over the fall of 2005, work on modules proceeded at a furious pace. Robin Eanes built the frames for four corners and two straight modules. The rest of us worked on our own modules and by January 2006, we had four corners and six four-footers ready to show. We set up that month in Gil Brauch's garage as part of the Carolina South-

ern Division of the NMRA Annual Meeting and layout tour in Catawba County. Most of that group models in larger scales, but were impressed with the display. This greatly encouraged all of us and we continued to develop our modules. Scott Teague built a 20 foot, double ended yard in less than a month's time after he decided to join the club. This quickly became the key element in our layout as we pointed toward our first public showing in April.

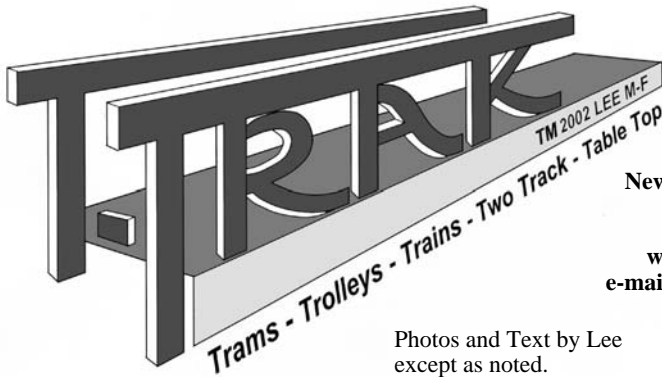
Sure enough, we were able to secure space from the Alexander Chapter of the NRHS at their annual train show in Hickory, NC. On March 31, 2006, amid much trepidation, all our modules showed up and we were up and running in a couple of hours. Everybody who came to the show commented very favorably on it. This was the first time many of them had ever seen N scale and most were amazed at the running quality of the equipment and the amount of detail and realism in the scenery. We have already received several inquiries about membership from the show.

More information about our club is on our website: <http://www.ccnscalers.com/index.html> or on our web-based forum: <http://forums.ccnscalers.com/index.php>.

Why tell you about this? Well, we are certainly proud of our accomplishments so far and are eagerly looking forward to full participation with other NTRAK clubs in North Carolina. However, we wanted others to know that it is still possible to find folks out there who are basement N scalers and you can come out of that basement (even if your membership is spread over a six county area). And it really doesn't take all that much effort. All you have to have is the desire to do it – and this bunch has that. Then you can join us in the gaggle of folks who have great fun just RuNNiN' TraiNs.



The club members are (left to right): Anthony Greenard, Robin Eanes, Dan Alexander, Kevin Beck, Scott Teague, Gil Brauch, Daniel Alexander Jr., and Jon Myers.



New N Scale Modeling
by Lee

www.T-TRAK.org
e-mail: Lee@T-TRAK.org

Photos and Text by Lee
except as noted.

Very Special Announcement! Very Special Run! Very Limited Quantities!

**“THE FIRST T-TRAK COMMEMORATIVE CAR”
A Cupola Caboose**

by Kato, using their American Style, cupola steel caboose shell.
A short caboose with center Cupola.

\$40.00 per car including shipping & handling.
Cars expected in July.

Send check or money order-no credit card orders to:

NTRAK, Inc. for the Special T-TRAK Car.
1150 Wine Country Place, Templeton, Ca. 93465

All profits from this Special Run, sponsored by Lee, will go to support the T-TRAK Youth Program, which encourages young people to learn the fine points of building a small wood module according to NTRAK Standards and learn about and enjoy other facets of model railroading from train club members.

T-TRAK Youth Program

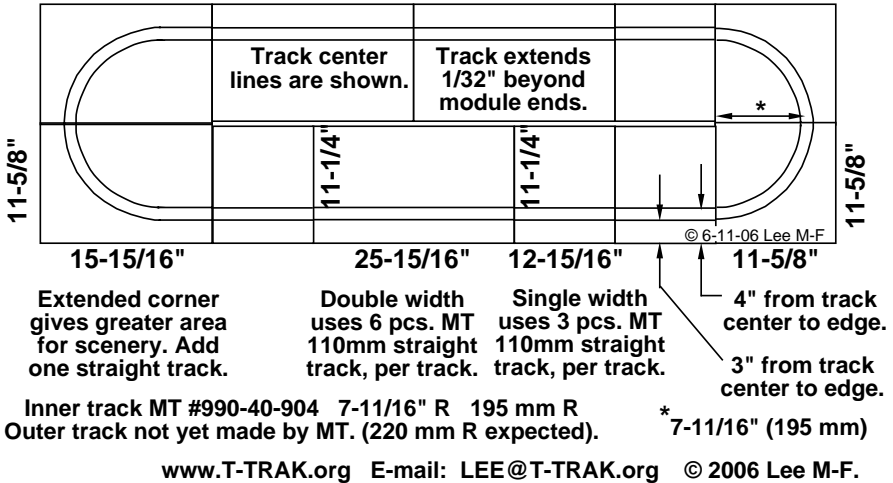
Established for club volunteers to teach and help youngsters learn, supplying the lumber and preparing the modules for them, according to age. This gives hands on experience, in building and passing on the fine traditions of NTRAK modules and Model Railroading. Besides N scale modeling, other scales are based on these theories, also. T-TRAK Certificates and Patches are awarded. Scouts can earn merit badges, for woodworking skills learned, as well.

Sales of T-TRAK Kits, Patches and Pins support the T-TRAK Youth Program.

Trams, Trolleys, Trains, Two Track, Table Top

NEW!!!!!!!!!!!!!! T-TRAK-Z

T-TRAK-Z Table Top Modules Two track layout size: 23-1/4" x 92-9/16"



This plan includes the very important and useful feature of T-TRAK modules for T-TRAK-N, T-TRAK-HO, T-TRAK-O, T-TRAK-S and now applied to T-TRAK-Z.

The module lengths shown allow the track to extend 1/32" at each end of a module, (1/16th" between each module"). This allows for gentle movement-"Rocking", to join or separate bases without pulling or pushing, stressing joiners, especially for Shows. (A small screw driver is useful).

Taking into consideration different factors and preferences, assorted plans and modules were developed for an easy starter, modular layout and still provide abundant track and scenery space.

A 3" allowance, 1" track center is used for the front section, to allow for a turnout, (when available), and for clear viewing of the trains, besides inside the track turnouts or for more scenery.

The "T-TRAK-N" front space is 1-1/2" to the edge of the first track. This plan allows for more space in the center for the larger buildings. In the beginning, people would look at the 12/1/8" L. x 8-1/4" Dp. x 2-3/4" H. drawing for a T-TRAK N module and ask "What can you do with that?" Therefore, I built tight urban and other scenes to convince people, to their amazement, that the size was not a detriment. I then, developed an assortment of base sizes, also.

Trams, Trolleys, Trains, Two Track, Table Top

This T-TRAK-Z plan allows for easier, long running and rural scenes. There is a choice of corners. Four extended corners can be used as a starter layout--adding double or single straights, as desired. There are triple and quad sizes in "N", great for individuals and clubs, but use up table space, quickly. A personal option available for Z scale, also.

Initially, the basic track power is supplied by the starter system, for new people. As they progress, it is builders choice or if they have joined a club, the clubs choice.

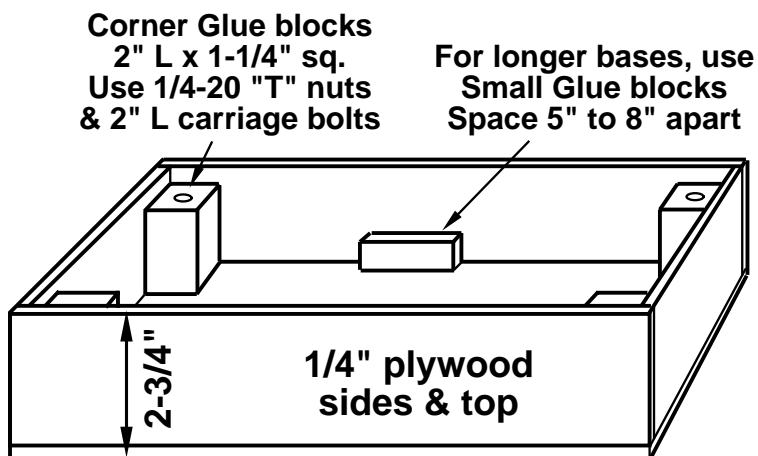
T-TRAK-N, T-TRAK-HO, T-TRAK-O, T-TRAK-S, T-TRAK-Z

All scales are interesting and you may like to try another scale, with the easy T-TRAK method. The purpose of T-TRAK is not to change existing practices of building modules or wiring. The purpose of T-TRAK is, to introduce people and prospective modelers, to the Model Railroading Hobby, with easy instructions and an easy-to-build wood module, based on the NTRAK Standards. At the same time, they learn about different scales and have a choice of scale, to accommodate a particular situation.

The experienced modeler finds this idea useful to expand his/her modeling.

The main idea of T-TRAK is to change a prospective modelers thoughts that modules and layouts are too complicated. On seeing, an easy to make T-TRAK wood module say "I can do that" and then perhaps later, they will join one of your clubs.

Typical T-TRAK Module Construction



T-TRAK Kits, Patches & Pins

Precision Cut, Baltic Birch, Original - International Specifications.

Easy Assembly. Got Glue?

The four corner blocks provided will help you with your gluing and keep the module corners square. The corner blocks have "T" nuts installed and four bolts are supplied.

Because of the precision cutting, the module bases can be glued and then placed directly on a table, for a layout or a shelf layout and display. Place these 2-3/4" high T-TRAK modules right on a table, for fast, easy set-up. Use leveling bolts only as needed. The kit is easily assembled with a good wood glue. Instructions provided.

Kato Unitrack®. from your favorite hobby supplier.

2 each #20-000 9-3/4" Straight sections

2 each #20-040 2-7/16" Straight sections

2 each #20-041 electrical connector tracks for track power.

(Instead of the #20-040 sections. One set powers about 30 modules.)

Of course, you can't build a layout without corners, so we now have module kits for Basic and Alternate corners. Now you can have your own "T-TRAK Layout Empire" and Run Trains

Precision cut Baltic Birch plywood frame, corner blocks with "T" nuts installed, extra 3/4" glue blocks, leveling bolts included. Simple glue together kit. Full instructions. Track is not included.

Straight module- (12-1/8"x8-1/4"x2-3/4"H)	Kit	S&H	
	\$9.75	\$4.70	
Additional modules same order, each	\$9.25	\$2.75	

Basic corner (12-1/4" square x 2-3/4"H)	\$13.40	\$7.25	
Additional modules same order, each	\$12.75	\$3.00	

Alternate corner (14-3/8" square x 2-3/4"H)	\$17.50	\$7.25	
Additional modules same order, each	\$16.60	\$3.25	



The Patch is 4-1/2" x 2-5/8"
The Pin is 1-1/8" wide



They are \$4.00 each, postage included.
Order from www.ntrak.org.

The main colors are bright blue and red.

The T-TRAK Logo™, T-TRAK Logo Patch© and T-TRAK Logo Pin© support the Youth Modeling Program.

Great Train Expo

Things seem to be settling down in the Train Show circuit. GATS is out of business. Greenberg Shows have been absorbed into the group who have been putting on the Worlds Greatest Hobby Shows. They are now also putting on the Great Train Expo shows at locations around the country with some of the dates formally reserved by GATS and Greenberg. Here is their schedule for the rest of the year. Check www.greattrainexpo.com for any changes or additions.

07/15-16/2006 – Monroeville, PA – Pittsburgh ExpoMart – 105 Mall Blvd, Monroeville, PA

07/22-23/2006 – Orlando, FL – Central Florida Fairgrounds – 4603 Colonial Boulevard, Orlando, FL

07/29-30/2006 – Timonium, MD – Maryland State Fairgrounds – 2200 York Rd, Timonium, MD

08/05-06/2006 – Fort Washington Replacement – Greater Reading Expo Center – 2525 North 12th Street, Reading, PA

08/12-13/2006 – Edison, NJ – New Jersey Expo Center – 97 Sunfield Ave, Edison, NJ

08/26-27/2006 – Chantilly, VA – Dulles Expo Center – 4368 Chantilly Center, Chantilly, VA

2006 Fall Show Schedule:

9/23-24/2006 – San Jose, CA – Santa Clara County Fairgrounds – 344 Tully Road, San Jose, CA

10/14-15/2006 – Indianapolis, IN – Indiana State Fairgrounds – 1202 East 38th Street, Indianapolis, IN

10/21-22/2006 – Winston-Salem, NC – Dixie Classic Fairgrounds – 2825 University Parkway, Winston-Salem, NC

11/04-05/2006 – Norcross, GA – North Atlanta Trade Center – 1700 Jeurgens Court, Norcross, GA

11/11-12/2006 – Denver, CO – National Western Complex – 4655 Humboldt St, Denver, CO

11/11-12/2006 – Monroeville, PA – Pittsburgh ExpoMart – 105 Mall Blvd, Monroeville, PA

11/18-19/2006 – Puyallup, WA – Western Washington Fairgrounds – 9th and Meridian, Puyallup, WA

11/18-19/2006 – Rock Island, IL – QCCA Expo Center – 2621 4th Ave, Rock Island, IL

11/18-19/2006 – Wilmington, MA – Shriner's Auditorium – 99 Fordham Ave, Wilmington, MA

11/25-26/2006 – Collinsville, IL – Gateway Cen-

ter – 1 Gateway Center Dr, Collinsville, IL

11/25-26/2006 – Edison, NJ – New Jersey Expo Center – 97 Sunfield Ave, Edison, NJ

11/25-26/2006 – Pleasanton, CA – Alameda Country Fairgrounds – Pleasanton, CA

12/02-03/2006 – Virginia Beach, VA – Virginia Beach Convention Center – Virginia Beach, VA

12/02-03/2006 – San Diego, CA – Del Mar Fairgrounds – Del Mar, CA

12/09-10/2006 – Fort Washington REPLACEMENT – Show location to be announced in November

12/09-10/2006 – Tulsa, OK – Tulsa Convention Center – 100 Civic Center, Tulsa, OK

12/16-17/2006 – Richmond, VA – Richmond Raceway Complex – 600 East Laburnum Avenue, Richmond, VA

12/30-31/2006 – Chantilly, VA – Dulles Expo Center – 4368 Chantilly Center, Chantilly, VA

12/30-31/2006 – Tampa, FL – Florida State Fairgrounds – Gate 2, Martin Luther King Blvd, Tampa, FL

COMING EVENTS

Information on future NTRAK layouts, meets or conventions is being gathered by Advisory Group member Dave Porter: <davidporter_colorado@yahoo.com>
8695 N. Silo Road
Parker, Co 80138
303-841-7365

Please submit your information to Dave.

If you would like to join in with a module in a layout, please contact the layout coordinator listed for that event well ahead of time. There most likely will not be room, if you just show up the morning of a show, unannounced.

Jul 2-8, Philadelphia, PA
NMRA National Train Show, Pennsylvania Convention Center, Contact: Terry Smith, mongo3@verizon.net
http://darntrak.com

Aug 9-13, Denver, CO
N Scale Convention, Denver Radisson Southeast, Contact: Dave Porter, davidporter_colorado@yahoo.com
http://www.denvernyscale.org (303) 841-7365

Aug 24-25, Bedford, PA
N Scale weekend, Bedford Auto Mall, Rt 30 2.5 miles west of Bedford. Exit 11 off PA Turnpike. 10-5, \$8 for weekend. Contact Mike Phillips, 733 Barclay Dr, Bedford, PA, (814) 623-2239 mikenscale@yahoo.com

Sep 16, OK City, OK
M RR Meet, Rose State College Student Center, 6420 S. E. 15th Street, Midwest City. Dealers, operatig layouts. 9-4 Sat, \$3 each, \$6 family. Info, Dean Gillmore, (405) 799-2827, LDGILLMORE@aol.com

Sep. 23-24, Danville, VA
Danville Old 97 Rail Days, 645 River Park Drive. 10-5 both days Several clubs with NTRAK layout. Other events include tours of the 1897 wreck site. 2 day trip pass \$10/ adult \$7/child, Julie Allen, 434-793-4636 www.dsc.smv.org

NMRA National Conventions
2006 Philadelphia, PA July 2-9
2007 Detroit, MI, July 22-28
2008 Anaheim, CA, July 13-19
2009 Hartford, CT July 5-11
2010 Milwaukee, WI, 75th Anniv, July 10-18
2011 Sacramento, CA July 3-9

Note: We try to include any information about NTRAK or N scale layouts that will be at the events listed. If you send in a notice, please include that information. If space is tight, notices that don't mention N scale will not be published. Jim.