THE HOTBOX

A Publication of the Teen Association of Model Railroaders

May 1995

Gateway to the 21st Century

SAVE YOUR TRAINS!

By This Time Next Year, This Train (& All of Amtrak) May Not Be Running!

DON'T LET AMTRAK BECOME EXTINCT!

Some people in Congress want to kill this train. In fact, *when the new Congress meets in January 1995 there will be serious attempts made to eliminate funding for Amtrak*--the only intercity passenger train service in the U.S. Just like every other form of transportation, Amtrak depends on federal support. If that dries up, so will the trains. *This is happening in spite of the fact that Amtrak has developed a large and loyal ridership.*

The fact is that *Amtrak has become a real success story.* Today it produces 35% more passenger-miles than it did in 1980, yet its inflation-adjusted operating subsidy is some 70% less. Amtrak covers more of its operating costs from fares--80%--than any other passenger railroad in the world. This system is doing much more with less.

Amtrak is being singled out among transportation modes for cuts. Considering inflation, from 1982 to 1991, aviation spending went up 97%, highways up 25%, Amtrak <u>down</u> 36%. Yet there are no proposals to eliminate highway and air subsidies from Congress--Amtrak alone is the target.

Killing Amtrak for the small savings of its subsidy makes no economic sense. Amtrak employs nearly 25,000 people. Tens of thousands of car builders and supply workers depend on their employers' Amtrak contracts. *The taxes on those salaries and on sales of supplies to Amtrak exceed Amtrak's congressional funding.*

Please write (and call) your representatives before it's too late.

Congress must hear from you, the Amtrak passenger. *You* are one of many who will be personally affected if Congress decides to abandon rail passenger service in this country. *You* know how important traveling by train is in your life, and in the lives of many others. Tell Congress! Tell President Clinton! Tell the Governor of your State! *They will listen, if they know our numbers.*

Please don't wait. While you're riding today...**write a brief note or postcard to:**

- ✓ Your Member of Congress
  U.S. House of Representatives
  Washington, DC 20515

- ✓ Each of Your 2 Senators
  U.S. Senate
  Washington, DC 20510

- ✓ The President
  The White House
  Washington, DC 20500

- ✓ The Governor of your State

Prepared by the Save Amtrak Coalition

THE HOTBOX

The official publication of the Teen Association of Model Railroaders

ISSUE #303 May 1995

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The TAMR Hotbox is the official publication of the Teen Association of Model Railroaders, a non-profit association created to promote, stimulate, foster, and encourage among youth and young persons, the hobby of model railroading, the activity of railfaning, and the preservation of the history, science, and technology thereof.

The Hotbox is issued monthly, twelve issues per year, along with the TAMR Directory of Members in January.

TAMR MEMBERSHIP

Membership in the TAMR includes a subscription to the association's magazine, The Hotbox, the January mailing of the TAMR Directory of Members, and a quarterly regional newsletter, as well as an invitation to attend and participate in all TAMR events. The following categories of membership are available:

Regular (21 and under).....$15.00
Associate (Over 21).....$18.00
Over Seas (Outside U.S.A.).....$20.00
Sustaining (Reg & Assoc).....$20.00+

Please address all renewals, membership applications, and address changes to the TAMR Secretary.

SUBMISSIONS

The TAMR Hotbox depends entirely on the association's members for its material. If you have articles for publication or want to respond to one of our columns, send your submission to the following people:

The Prime Mover..... David Hadley
TAMR Clinic.....John Reichel
Shoestring Budget.....Peter Maurath
Shortnotes on Shortlines...Aaron Marcavitch
Haulin' Coal.....Brent Johnson
All other submissions.....Hotbox Editor

Guidelines for Submissions

Style,Content- Your own writing style is fine with us; remember you are among friends. If you have grammar trouble, let the editor worry about that. The ideas of what you write are what is important. As far as content, we will accept almost anything on modeling, painting, scenery, electronics, layouts, and the prototype. Just make sure that it will be of interest to the majority of readers. The editor reserves the right to choose what gets printed and what does not.

Photos- Please send glossy photos only. Brighter photos with good contrast work best. Photos relating to your articles will enhance them. Please send caption information with your photos. Include: Where, when, how, why, or any other essential information along with the name of the person who took the photo. All photos will be kept unless a SASE is sent along with the prints. Cover photos should be 8x10 or larger with minimum grain.

Artwork-All drawings and artwork must be in black or blue ink. Artwork relating to your articles is gladly accepted. The Hotbox editor is not responsible for lost or damaged artwork. Send SASE if you would like your artwork returned. Please send two copies if possible.

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A Rail Grinder Visits the Ozarks

By Nathaniel Weatherington

One problem railroads face is wear on track and it is usually curves that are more susceptible to wear than tangent (straight) track. There are several options the railroads can do to solve the problem. One of the best ways is to grind it. Loram Inc., a company in Hamel, Minnesota, operates about 12 rail grinders which contract out of different railroads, including the Burlington Northern which has contracted three of their machines.

RG18 sitting on the house track in Willow Springs, MO taking in some sun on this cold Sunday afternoon day. *Photo by N.L Weatherington*

If you look at a new piece of rail, you'll notice that it is slightly curved, which is designed to reduce friction between the rail surface and the car wheels. Over time and depending on rail traffic, the rail head will wear down. Grinding restores the roundness of the rail head. Eventually the rail will have to be replaced by a steel gang.

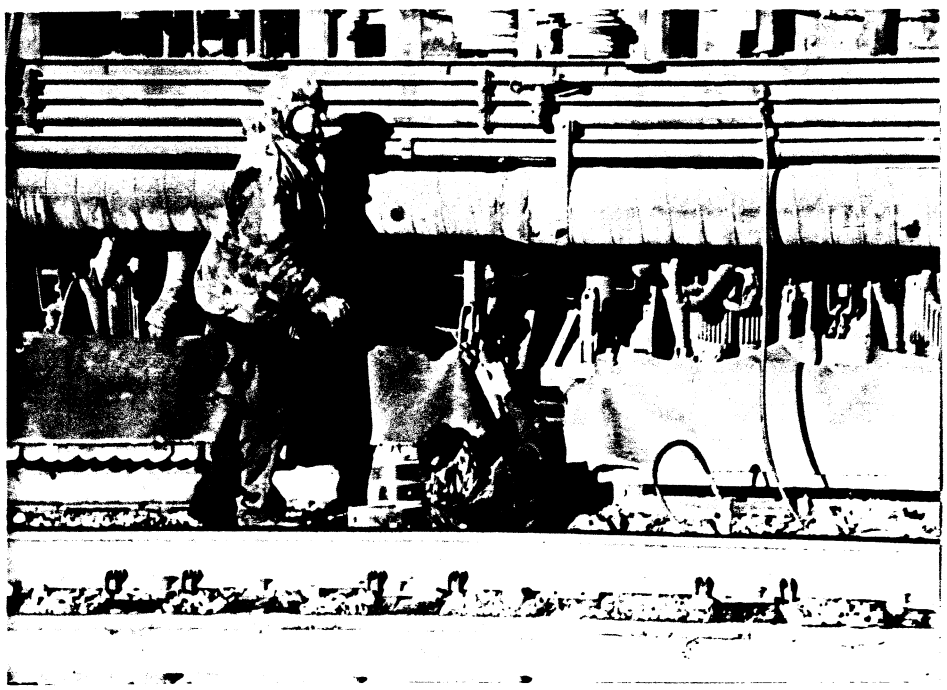
The rail grinder is 600 foot long, consisting of two machines. "A" cab is the first machine followed by a fuel tender carrying two, 2700-gallon tanks of diesel fuel. "B" cab, the second machine, is followed by two 30,000 gallon tank cars to provide water for firefighting. A caboose or "C" cab brings up the rear.

About ten workers are involved with this machine, usually five are railroad employees who operate the hy-rail vehicles and keep watch for grass fires and get track & time for the machine.

The Loram crews work six days a week on 12 hour shifts. After they quit for the day, a support crew takes over and does maintenance work on the machines during the night, like changing grinding stones, changing fuel filters, etc. The only time the machine shuts down is when the machine takes a two week vacation after working six weeks straight. Otherwise, the machine is left running 24 hours a day.

The rail traffic determines how much grinding the rail grinder gets done. If there is a lot of rail traffic they get little time, if any to work, and they may only get a few miles done in a day. They usually require a four hour time window.

The grinding stones are mounted in modules underneath the machine. There are six stones per module, three on each side. Computers are used in both machines to control the pressure of the stones on the rail. A series of toggle switches raise and lower the modules. They also use a series of grind patterns while they are grinding the rail. There are 88



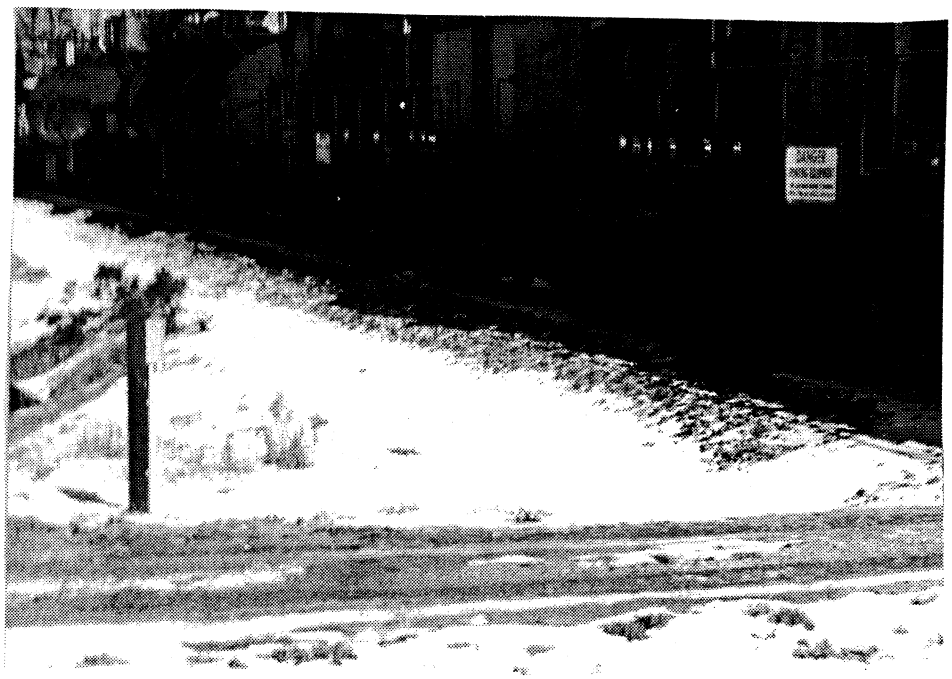
Two Loram employees changing some of the grinding stones under B cab. The hose to the right is a pneumatic impact wrench. *Photo by N. L. Weatherington.*

Two Burlington Northern pusher units enroute to Springfield, MO after pushing a coal train up the hill north of Willow Springs, stop by the house track so the crew can get a bite to eat. *Photo by N. L. Weatherington*

grinding stones on this machine which give the rail a nice grind. This machine ground about 8,600 miles of track in 1994 and worked about 19 states.

If the rail grinder is waiting for a train, the crew will usually take the opportunity to inspect and change the stones. To do that, they lay down on the ground and scoot under the modules, then they use either a pneumatic impact wrench or a regular wrench to loosen the bolts that hold the stones in place.

After the rail grinder makes a pass on a curve, the roadmaster, or welding supervisor, who rides either on a hy-rail truck or in a cab will measure the rail height with a special instrument. If it's not at the right height, he will advise the operator the back up and re-grind the curve. Depending on the rail traffic, it may sometimes take between one to 11 passes to clean up a curve. They also grind while they are backing up so that cuts down on the amount of passes they have to make.



RG18 north of Willow Springs, MO making a reverse grind on a curve. *Photo by N. L. Weatherington*

If the operator approaches an obstacle in the track, such as a road crossing or a mainline switch, he flicks the toggle switches and the modules raise up one at a time. after he is clear of the obstacle he will drop the modules down and continue grinding. The average grinding speed is between 2.5 and 8 mph.

On these machines draw bars are used to connect the machines instead of couplers. This is because the units have hoses and cables between them and they don't want the units to rock back and forth.

Because of the length of the machines, the operator in A cab cannot see directly ahead of him so he has three cameras up or down or zoom in for long distance view. The camera on the caboose is used when the machine backs up.

Communication is essential on this machine. Everyone on the machine has a portable radio —some have a microphone attachment— so they can talk to each crew member. To warn people on the ground they use a series of sirens and whistles. They also have a siren that they sound if a train is going by them, it is used to warn the crew if they are on the ground doing work.

When this machine is grinding, it tends to kick up a lot of dust and smoke. Before Loram installed a dust collection system, the grinding dust was so bad that you could barely see the machines at all when it was working, particularly if standing far away. Air quality laws forced Loram to install the collectors so the dust isn't as bad as it used to be.

One problem the machine has is starting fires. When the machine is grinding, the sparks from the grinding stones hit the brush and the railroad ties. To protect the ties from burning, the A cab operator sprays the ties just before they grind over them. The B cab operator sprays the ties again to knock down any fires that might have started.

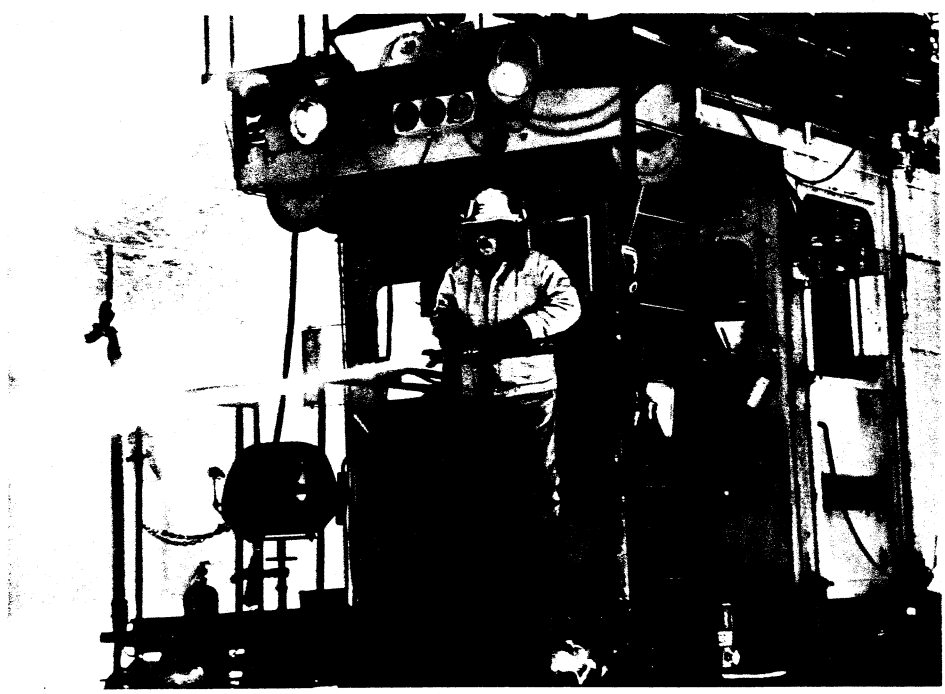
To prevent right-of-way fires, the dry brush area is sprayed with fog nozzles mounted behind the snowplows on A and B cabs. If a fire does start, the employees on the caboose usually knock it down. If a right-of-way fire flares up and the grinding train is too far away, a second hy-rail truck has a 250-300 gallon portable tank. Another job the employees have to do is watch the ties for any slag, then they have to squirt water on it before it catches the ties on fire. They also have to thoroughly spray any road crossings, switches, or bridges they go over. They have to stop grinding over wooden bridges now because of the fire hazard involved with them. But even though they stop grinding over most bridges, they still have to spray them down thoroughly because hot slag and sparks can fall onto the bridge decking and catch fire. The exception would be if the bridge is on a curve, then they'll grind over it. They use the water cannon on top of the caboose to hose down the bigger bridges, plus they use it to extinguish big brush fires.

I got a chance to ride on a rail grinder in July of 1992. They put me to work on the caboose putting out fires. I spent all day with them. The work was fun, but hard. We had to extinguish about 15 or more fires that day. It took us about four hours to go 15 miles.

This grinding train would definitely make a good impression on a layout. It would be a challenge to model. I think it could be done, however it would take a long time to build. Some of the parts, such as the cabs of the locomotive, truck wheels, tank cars, and the caboose could be bought locally. If you wanted to power the machine you could salvage a motor off an old locomotive. Some of the parts, such as the frame, the modules, hose reels, piping, and dust systems would have to be scratch built or salvaged from old equipment.

Painting and decaling the machine would be a challenge. To paint you would need an airbrush and several small paint brushes. For your choice of color you could use either Union Pacific yellow or Reefer yellow. For weathering you could use several different shades of black to simulate heavy weathering on this machine. I don't think there are any decals available for rail grinders, so this would present a challenge.

Hot slag from the rail grinder's module caused this crossing to catch fire. The crossing timbers sustained minor damage. *Photo by N. L. Weatherington*



Trackman Noble Wilbanks spraying the crossing down from C cab. *Photo by N. L. Weatherington*

Take a Railfanning Trip to Your Basement

By Matt Sharp

I recently realized a reason for model railroading that goes significantly further than just trying to build a accurate model: the opportunity to watch trains under your own control. A railfan's ideal pastime is to follow, catch, and generally observe trains in action, whether they be branchline strings of small coal hoppers behind a seasoned RS1, hotshot piggybacks pulled by three U28's, or silver streamliners slithering over the rails like stainless steel pythons. However, railfanning takes time and effort. A railfan's first task is to get to the trains; only these fortunate enough to live right on the mainline have the trains come to them. Railfans have this challenge and experience helps give knowledge of where trains go and what the best means to find them are. True, when what you want to do is see trains, by far the best thing to do is really *see trains.* And still, a day can easily be spent railfanning, including running around, catching up to those big, imposing, and yet elusive giants.

So what is the next best thing? Modeling it all, of course. While building and maintaining a model railroad is time consuming as well, it is entirely possible to take a half hour trip railfanning in your very own basement or train room. And even better, the trains are right there in front of you, because you put them there. You have complete control over what happens, so you can do a photo run by when you want to do a photo run by; you can watch blinding sunlight gleam off stainless steel car sides when it is raining out; you can watch your Shay strain up steep and perilous mountain passes even though you live on a flat prairie as far as the eye (and the railfans camera) can see.

This is my situation: I live in suburban New Jersey, but I love the Rockies of Colorado's western slope, so I model a free-lanced shortline based on the Denver & Rio Grande Western.

Another great opportunity we have is to see steam regularly operate. While there are a good number of tourist railroads that run steam, steam as the workhorse of American society is sadly, from a train lovers perspective, a thing of the past. But we, the brass hats of our scale empires, have our free choice of motive power. And if I wanted to run the most modern diesels on my pike, which happens to be set in the transition era of the 1950s, I could do so as easily as a trip to the hobby shop. I'm not speaking out against modeling strict prototype; I myself try to stay as close to the prototype as I can, but it is true that we have no limits on what we can and cannot do except for the ones that we set ourselves, and possibly the fact that we can't annex the laundry room for an extension as many of us might do if we had the chance.

A model railroad takes the same repair, planning, and general maintenance and operational efforts that real ones do. But still, an engineer can't hop out of an SD45 at 50 miles per hour and watch the train go by like the modeler counterpart can. So why not take advantages of our privileges? I do myself get as much out of building and tinkering as I do from operations, but on a good day, when derailments are at their minimum, I like to start a train running and just watch. Try different angles, getting down to a scale person's eye level; watching from above, across the room , looking closely at your favorite scenes, etc. and you'll find you can appreciate much better the little world you've created. And while we do build full scenes instead of cab view simulators so we can have a look at the outside of what we're running, more attention can be paid to the equipment running rather than the actual running of the equipment.

All to often we get in over our heads trying to be the railroad, instead of letting ourselves be those who spend their time watching it. And yet, we spend our time watching the real railroads, and with our time we spend our energy and effort, all the while overlooking the railroad that is closest. Opportunity awaits from a place that might not always be the most obvious. So, next time you get caught up in running the railroad, take a step back and go railfanning for a trip in your basement.

We have a new editor

Mike Riley
1040 E. Maple Ave.
Miamisburg, OH 45342

The St. Clair Tunnel

CN North America's Gateway to Business Growth

By Matthew J. Schwerin

On September 16, 1993, a $17 million state-of-the-art tunnel boring machine began a historic journey from Sarnia, Ontario.

Guided by satellite, lasers, and computer technology, aptly nicknamed "Excalibore" is now burrowing westward into soft clay deposits to carve a new international railroad tunnel beneath the St. Clair River between Sarnia and Port Huron, Michigan.

Scheduled to open in the spring of 1995, the large diameter tunnel will replace the existing smaller tunnel at Sarnia-Port Huron that has served the CN-GTW for over 100 years.

According to CN North America, the new tunnel is the vital linch-pin in CN's efficient, seamless rail route between Montreal, Toronto, Detroit, and Chicago, an increasingly important transportation corridor. Because of restricted clearances, the present tunnel cannot accommodate freight equipment used extensively by the automotive industry. Nor can it handle the movement of double-stack container trains, which are being successfully utilized by railroads to improve their productivity, thus attracting freight business from the highways.

As a result, rail operations at Sarnia-Port Huron are complemented by railcar ferry transportation across the St. Clair River.

When the new tunnel is finished, it will enable CN North America to significantly improve transit times -a powerful competitive advantage.

Fascinating Facts & Figures (from CN North America)

The Tunnel

- Length - approximately 1,868 meters or 6, 130 feet
- Outside diameter - 9.2 meters or 30 feet, 2 inches
- Inside diameter - 8.4 meters or 27 feet, 6 inches
- River depth - up to 35 feet
- Distance below river bed to the top of the tunnel (crown) is a minimum of 4.6 meters or 15 feet below river bottom... there will be no disturbance of river bed.

The Tunnel boring Machine "Excalibore"

- Diameter - 9.5 meters or 31 feet, 2 inches
- Overall length - 98.2 meters or 322 feet
- Total weight - 724 tons

The Construction Schedule

- Construction started March 1, 1993
- Excalibore's start up - September 16, 1993
- Average daily advancement - approximately 26 feet
- Expected hole - through - fall 1994
- Scheduled to open - Spring 1995

After Completion

- Train frequency - approximately one train per hour
- Original tunnel -to be retired when new one opens
  -already recognized as a historic landmark
  -facades to be protected and maintained

It's RJ Cormon's "My Old Kentucky Dinner Train" at Bardstown, Kentucky on June 25, 1995. This is one place the 1995 conventioneers stopped. *Photo by Brent Johnson*

The Kentucky Railroad Museum's CF7 pulls the train into the station at New Haven, Kentucky. Participants in the 1995 convention had the chance to ride the train from New Haven to Boston. *Photo by Brent Johnson*

TRAIN ORDERS

TAMR News

Mark this in your directory. Brad Beaubien, the TAMR treasurer has a new phone # - 712-943-3215.

In other news, we have a new editor. Mike Riley of Miamisburg, Ohio will be taking over the position beginning next issue. Please send him articles to get him off to a great start. His address is

Mike Riley
1040 E. Maple Ave.
Miamisburg, OH 45342

You probably noticed that this issue is a little late. It is the May issue and it is already July. That means that the convention is already over. I am not going to go into full detail about the events yet, however I will bring up some of the topics discussed at the convention.

The idea of each region having a modular layout (like N-trak) that can be taken to train shows to promote the TAMR was discussed. The response was good from the people at the convention so planning is taking place. We would like to hear from the membership to see what your response is. Tell your regional representative if you like the idea of having modular layout and what scale you think it should be modeled in. It is obvious that HO and N scale are the two scales which each region will decide between.

Standards will be developed, just give us your input and ideas regarding this project.

Well this is it. My last issue of the *Hotbox*. It was a fun seven months being editor. I don't think it ever ran on schedule, but I think the lateness has carried through many editors and has never been repaired. Hopefully we'll end this problem soon.

Editor is one of the most important jobs in the TAMR, and it is also the most difficult. I had fun though, and I was able to be really involved in the organization.

I'm waiting to see what Mike is going to do with the *Hotbox*. I hear there will be a splash of color. Well we can only wait and see. *-BJ*

NER Rep., Ole Bye in the foreground and MR's Rick Selby wait patiently before they are taken to the next event at the 1995 TAMR National Convention.

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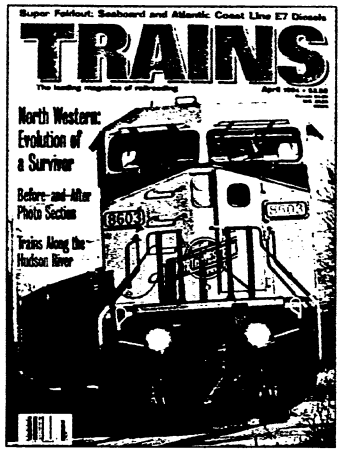

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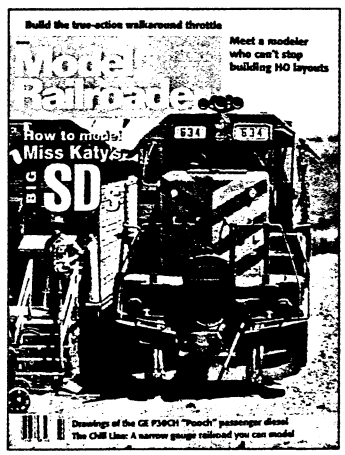

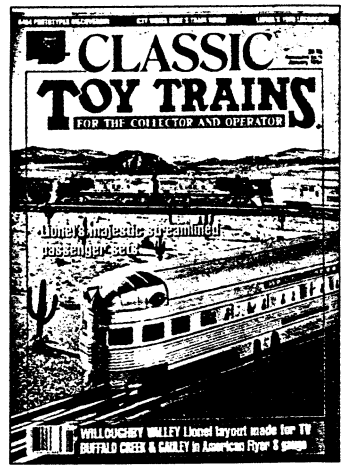

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8. New improved HOTBOX
7. Directory mailing in January
6. Great ideas from other teen modelers
5. National convention
4. Regional newsletters
3. Tax-free
2. You have fun in the TAMR
1. Best deal around for $15.00

What more is there to say? Detach the membership application and mail it in today!

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