

# Rochester Model Rails

*Dedicated to Quality Model Railroading*

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A New York Central 4-6-4 pulls grape color passenger cars on Ed Seus' O scale 3-rail *Keuka Lake and Ellicottville Railroad*. The town on the right is Hammondspport, NY. *Digital Image by Ted Williams.*

**Reminiscences – The NYO & W RR**

**Photo Gallery – *The Railroads of Ed Seus***

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**NMRA MMR vs CARM CRC**

## NOTICE

If you would like to have digital images of your Model Railroad published in the *RMR Photo Gallery*, contact the editor at:  
[OCRR@frontiernet.net](mailto:OCRR@frontiernet.net)

## **Reminisces – The New York, Ontario & Western Railroad**

*by Frank Smith*



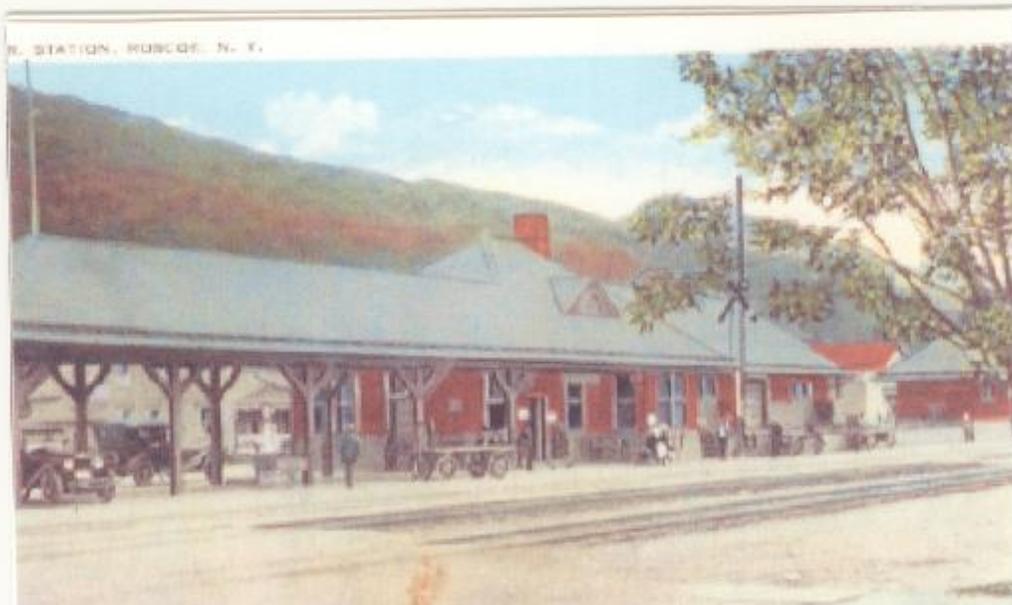
The New York Ontario & Western Railroad is the reason that the Beaverkill River is a prime trout stream. In 1878 a million and a half trout were planted with another three hundred thousand in 1884 and 1890. The railroad became political and pushed a bill through the New York State Legislature to establish a hatchery at the headwaters of the Willowemoc River. This was not a civic endeavor but a business interest as they ran many week end passenger trips to Sullivan County for fishing.

As I promised in my last article the boys of Cooks Falls listened on dark stormy nights for the late heavy coal train to stop and load the tender with water. The coal train was made up at Cadosia with fresh fires, coal, sand and full water tanks. The schedule called for the run to be made from Cadosia to Livingston Manor where water would be picked up for the run in to the New York area. If any delay occurred - wet, snowy tracks or mudslides - water would have to be picked up at Cooks Falls.

The long grade into Cooks Falls made a lot of jockeying to get the tender under the water drop. When the stop was made the brakeman left the caboose and walked down the track about a mile and placed warning torpedoes on the track. These were small explosive charges that were set off when a locomotive ran over them. This was a signal to the engineer on the following train that traffic was ahead, so he could slow down and stop in time. We boys were listening for these explosives to go off as they were held on the tracks with strips of lead, which could be picked up in the morning. It was not our interest in the lead strips for recycling but to sell to the fishermen for sinkers. We could then put more money back in circulation by buying candy!



O & W RR Station at Roscoe, NY



O & W RR Station, Roscoe, NY

# PROTO 2000 E8/9A

*by Lou Nost*



The original issue "Proto 2000" E8A/9A (only A units were produced) is one of the nicest running 'E' units you'll find around in HO, along with all the other fine models issued by this manufacturer. I particularly like the research they do so they can juggle the numbers, details, accessories, and appliances to produce a most convincing model of the various prototypes selected.

I model the Santa Fe and although AT&SF had only eight (8) E8m A units, 80-87 and five (5) B units 80A-84A, I had to obtain a second A unit after I saw how well the first one ran. A problem arose when I tried to double head them back to back. The units ran at different speeds; the forward facing one always ran slower than the one that was running backwards.

The problem is inherent in the lighting module, the circuit board (CB) for the headlights. The main headlight, the upper light on dual headlight applications, has a constant intensity circuit to drive it. Typically this circuit employs three (3) diodes in series with the motor for each direction (6 diodes total). Because this model has no light at the rear end, two diodes were eliminated from the rearward illumination portion of the circuit. Constant illumination comes from the characteristic of a conducting diode that a voltage drop or loss across a diode will always be fixed at about .75 volts, unlike a resistor whose voltage drop is proportional to the current flowing through it. Two diodes in each circuit leg are used to illuminate a 1.5 volt bulb to full brightness, the third diode is necessary for directional switching. The first 2.25 volts ( $.75 \times 3 = 2.25$ ) applied to the track are dropped across these 3 diodes, any additional voltage is then available for the motor to run the locomotive.

To make the E8's run at the same speed in both directions, all we have to do is add the two missing diodes [1N 4001 through 1N 4009] to the CB. See the schematic diagram. Fig.1. Before performing any modifications to your E8 check it to see that it does run in both directions, and that the Mars light (if present) and the headlight both work in the Forward direction only. Place the chassis on the workbench with the cab toward the left. This will be our reference position for all activities that will be performed on the CB.

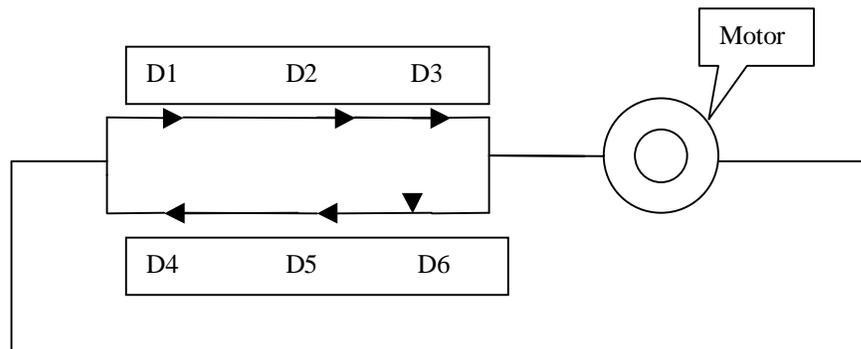
To start the project we need to remove two screws along the left edge of the CB that hold it to the rear of the chassis. Be careful when lifting the CB as it will be somewhat constrained by all the wires attached to it, and there are two spacers under it to space and insulate it from the chassis. Save these for final re-assembly. There are four vertically mounted diodes along the near edge of the circuit board, D3, D4, D1, & D2 respectively from the front to the rear of the locomotive. Remove D4 using your best desoldering technique. This is the second one back, with the silver band against the circuit board. Next connect three diodes in series (anodes to cathodes) soldered closely together.

Form them into a "U" shape and insert the ends in the same holes that D4 came from. Be sure to install the silver-banded end of the series string in the inboard hole and the non-banded end in the hole nearest you. If you do not install the new diodes properly your E8 will not run at all in the Reverse direction. If any one of the three new diodes is reversed or open the unit will not operate in the Reverse direction either.

Solder carefully and check to see that bridging did not occur on the foil side of the circuit board. Trim all excess leads as short as possible, top and bottom, to avoid any interference's or short circuits.

This is the time to test the E8 to verify the upgrade. Although it looks as though the large transistor Q1 of the Mars light circuit is heat sunked when fully mounted, the unit will function properly sitting high in mid-air for this test. Simply compare the reverse speed of this unit to that of the forward speed of any other similar unit. Placed six inches apart on a test track, they should not couple for at least four feet of operation. On my layout the two units looked like they had an invisible drawbar between them after the modification. Once the locomotive is operating to your satisfaction, simply remount the circuit board to the frame and put the shell on and you are ready for some serious back to back (M.U.) mainline operation.

Add diodes D5 and D6 to D4 and insert the 3 diodes in the same two holes that D4 was removed from.



**Doctor Dick's Presentation**

**November 18, 2004 - Rochester NRHS**

*The Oil Creek Rail Road Company 1860 -1868*

*Scenes from the Model Railroad of Ed Seus*



*Digital Images by Ted Williams*

## Mini Cut-Off Saw

by Dick Senges

Image by Matt Kovacic

**Product  
Review**

For many years I have been searching for a good and inexpensive way to cut HO scale lumber, specifically to make perfect or near perfect 90-degree cross cuts. Since one can purchase HO scale lumber cut to dimensions, the challenge has always been to make the cross cut as perfect as possible. It seems that in making a wood kit or scratch building, the 90-degree cut is the most common.

In this search, many different methods have been employed: miter box with *Zona* saw, single edged razor blades, *Chopper I*, *Chopper II*, home made heavy duty chopper, *Midwest Products Easy Cutter*, and sanding using a miter sander.

Even though some of the above methods can result in a near 90-degree cut, they still were not quite on the money. One of my model railroad friends built a very expensive and complex miniature table saw which cuts extremely perfect HO scale lumber. Not being a master mechanic, this was not really an option.

So what to do? Well another of my model friends mentioned to me that *Harbor Freight* ([www.harborfreight.com](http://www.harborfreight.com)) had a mini cut-off saw at our local *Harbor Freight* store for only \$19.99. This seemed to be worth trying, especially for that price.

I purchased the saw. It is fully assembled except for attaching the saw blade. This was done very quickly and the saw tried. It does work nicely and makes a fine 90-degree cut.

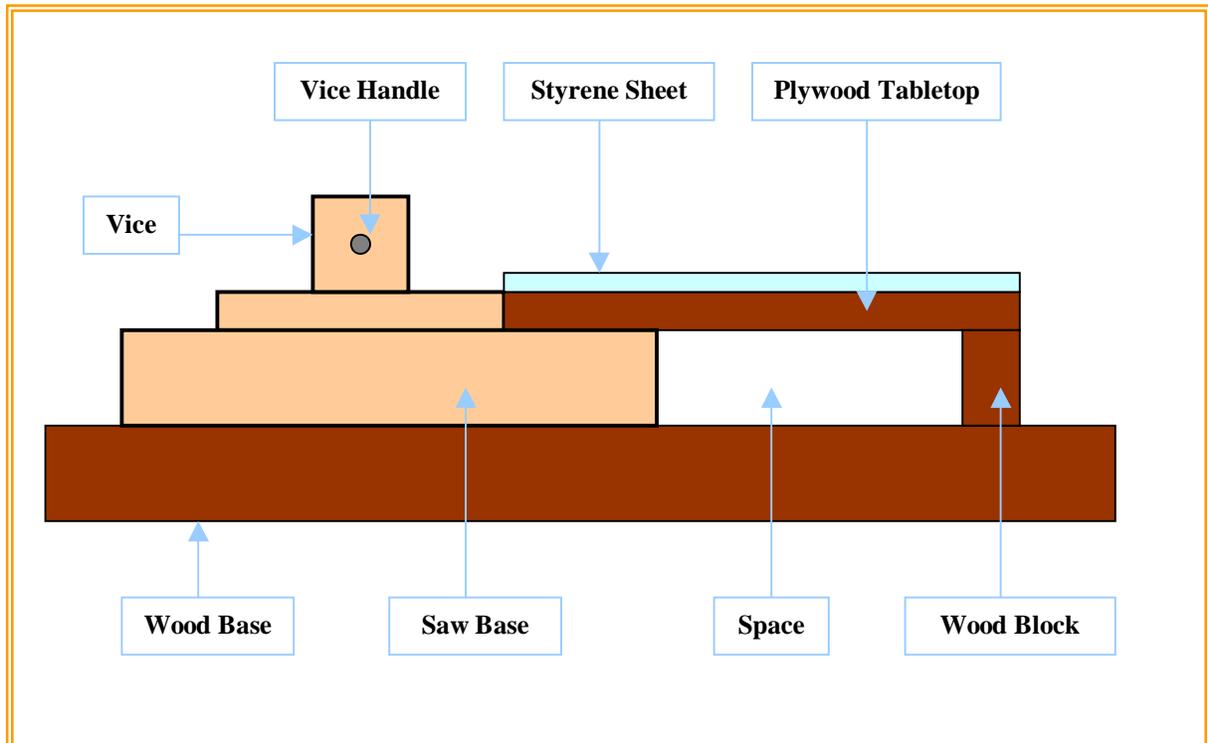
Matt Kovacic suggested that the saw be mounted on a base and a small tabletop be constructed to the right of the saw. This small tabletop would aid multiple cutting and also support the cut-off wood.

### Technical Specifications

Tool Name: Mini Cut-Off Saw  
 Part Number: 42307  
 Arbor: 3/8"  
 Blade Diameter: HSS 2"  
 Blade Type: Multi tooth  
 Power: 11V AC, 60 Hz., 90 watts, 0.9 amps  
 RPM Max: 7800  
 Cutting Depth: 3/4"  
 Miter Gauge: 0 degrees – 45 degrees  
 Base: 5.5" L x 5" W  
 Overall: 9" L x 5.5" W x 6.75" H  
 Cord: two prong, 71" 18 AWG  
 Net weight: 3 pounds

Matt's advice was implemented. A small wood base measuring 7" x 11" was made using 3/4" plywood. The cut-saw was mounted on this base using two flat head screws. A small top measuring 6.5" x 4" was constructed using 0.230" plywood. A 0.040" sheet of white styrene of the same dimension was then glued to this tabletop bringing the total height up to the appropriate cutting height of the saw. A small support block was cut and glued under the tabletop to support the right side.

Page 8 shows an image of the saw along with a front view of saw with custom table.



Front View



## *Ask Doctor Dick (The Scenery Doctor)*

[OCRR@frontiernet.net](mailto:OCRR@frontiernet.net)

### Marty writes:

I have a large HO scale layout and want to build a long (9 feet) wood retaining wall below a very large rock face and shale slide. I don't want to spend a lot of time or money to do this but I want it to look good.

### Doc:

Here are my suggestions based on actual experience. I have had success building retaining walls using wood coffee stirrers and 12" x 12" scale lumber.

The wood coffee stirrers measure 3" x 18" x 39 feet in HO scale. This sounds large but to hold up a rock slide, the timbers must be strong. I had purchased these wood coffee stirrers some time ago for a dollar a box of 1000. [Ed. - if unable to get cheap wood coffee stirrers, try scale lumber 4" x 12".]

First I laid out a general construction plan. There would be 20 sections, each having 10 3" x 18" pieces stacked on edge. The outside vertical posts would be 12" x 12" scale homegrown/made basswood lumber. See the drawing below.

The 12" x 12" basswood was first grown as a tree on my property here in Victor, NY. The basswood here is not as dense as that grown in Canada but is suitable for rough construction such as a retaining wall. A 5' tree was cut down and cut into 3' lengths. The ends of the logs were waxed by melting old candle wax. In this way the log dries from the sides not the ends, minimizing cracking.

When the logs were dry, they were passed to another fellow modeler, who on a large table saw, cut to 4" or so squares about 3' long. The wood was then given to another local modeler who, on a very small and high precision home made table saw, cut to HO size dimensional lumber, thus the 12" x 12"

lumber was created. Since there were 81 pieces required (each 2.5" in length), the 12" x 12" pieces were also cut to length.

The length of the coffee stirrers was not critical but all ten pieces of each section had to be of equal length. An easy way to do this was to group ten pieces together with a rubber band and using a disc sander, sand each end of the bunch.

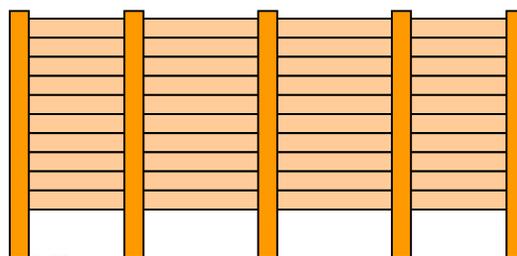
Now with the 200 horizontal 3" x 18" pieces and 81 12" x 12" vertical pieces cut to size, staining was the next step. I used a mixture of denatured alcohol and black leather dye.

In order to speed up production and keep the wall straight, a simple jig was made by screwing a piece of lattice to a wood work table. This allowed the coffee stirrers to be aligned in a straight line.

A strip of brown Kraft paper was laid on the table up against the edge of the lattice and taped down. The coffee stirrers were then glued to the paper, 10 high in each section, 20 sections long, using all 200 wood stirrers. Each section was butted to the next section.

On each vertical seam a 12" x 12" post was then glued to the wood stirrers. Additional three posts were glued in between each of these seam posts, using 83 posts in total. Each post was about 9.5 scale feet apart.

The total cost of the 2 inch x 9 foot retaining wall was about 20 cents not counting the denatured alcohol, black leather dye, brown Kraft paper, and white glue. So maybe the total cost was 25 cents. Time to construct was fairly fast since the jig helped a lot in holding the wall straight. Metal weights held the wood down until the glue dried.



**NMRA MMR**

Vs

**CARM CRC**

The National Model Railroad Association calls their national achievement program *Master Model Railroader (MMR)*. The Canadian Association of Railway Modellers calls their craftsman program - *Canadian Railway Craftsman (CRC)*. The following compares and contrasts these two programs.

The formats are very similar. The sections, requirements, score sheets, etc. are also similar. CARM calls their categories "*Tracks*" and the NMRA calls them "*Categories*". The CRC score sheets are "pass" or "fail", not specific scores.

MMR has 11 *Categories* where the modeler must complete 7 of the 11, at least one in each of four main categories. CRC has six main *Tracks*, but two of the tracks have three sub-sections, so really a total of 10 altogether.

A big difference between the two is that in the MMR program one has some choice in what tasks one completes. In the CRC, one must complete all 10 areas of skill/service. For example, in the CRC one must complete all the following: *Scenery, Layout Wiring, Track Planning, Motive Power, Structures, Rolling Stock, Mentors, Web Site, The Canadian, and Service.*

The CRC has some new stuff in it such as contributing six articles to their newsletter (*Track Four: "The Canadian"*) and another track of contributing six articles to the CARM website (*Track Two: Web Site*).

CRC does not have any Category for *Chief Dispatcher* or *Prototype Models*. The MMR does not have any category for *Mentors* as does the CRC. In the CRC *Track One: Mentors*, one has to mentor two adults (CARM members) and one youth (CARM YCRC member).

One of the big differences is that the CRC covers a broader scope of skills, but fewer models are required (in *Structures*, 4 vs 12). For example, only 2 models in *Motive Power*, four models in *Structures* and four models in *Rolling Stock*. But, all the models in the CRC must be 75% scratch built (*you actually have to make the parts*) - a difference here compared to the MMR.

Either way, the MMR or the CRC requires a high skill and service level and a bunch of paper work. For more details, see the NMRA and CARM websites.

NMRA website: [www.NMRA.com](http://www.NMRA.com)

CARM website: [www.CAORM.org](http://www.CAORM.org)

**HOW TO MAKE GOOD PHOTOS BETTER***by Leaf Shutter*

Guideline No. 13

- Angle of View

Do not include too much in the picture. Artists rarely show more on a canvas than can be seen from an angle of view of about 30 to 40 degrees. Wide-angle pictures with an angle of 80 to 100 degrees seem unreal for that reason. The human eye has an angle of view of about 50 degrees and is similar to that of the 'normal' 50mm camera lens on a 35mm camera. Of course there are times when you are forced to use a wide-angle lens. Taking the picture of a locomotive when you cannot back up any further for instance or getting underbody detail.

Do not take pictures of an object straight on unless you are looking for specific information or data. I call these Klutz photos. Always take your photographs at an angle to the subject. Try to include the end of the rail car as well as the side. This applies to buildings, locomotives, or people.

*Visit the*[www.railroadmuseum.net](http://www.railroadmuseum.net)**Coming Next Month .....****Painting Figures –***My Shadows Theory***R W & O Railroad - Part I****Photo Gallery – Peter Vassler's Logging Layout****Ask Doctor Dick – The Scenery Doctor***How to Build a Low Cost Layout***Rochester Model Rails***Editor and Publisher*  
Richard A. Senges*Web Master*  
Ted Larson*Photography*  
Matt Kovacic

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George Irwin  
Jack Matsik  
Lou Nost  
Jeff Ornt  
Gary Patterson  
Richard Roth  
Harold Russell  
Frank Smith  
David Thompson  
Norm Wright

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## [Recommended Train Events for 2004/2005](#)

Updated 9-27-04

|                            |  |
|----------------------------|--|
| <b>October 2, 9, 16</b>    | <b>Sodus, NY</b> – Rochester Chapter NRHS Fall Foliage Trip                                  |
| <b>October 3, 10, 17</b>   | <b>Sodus, NY</b> – Rochester Chapter NRHS Fall Foliage Trip                                  |
| <b>October 5 &amp; 19</b>  | <b>Medina, NY</b> – 11:am Tuesday Fall Foliage Scenic Train                                  |
| <b>October 9-10</b>        | <b>Timonium, MD</b> – Great American Model Train Show  |
| <b>October 9, 10, 16</b>   | <b>Medina, NY</b> – Fall Foliage Scenic Train Ride   |
| <b>October 12</b>          | <b>Medina, NY</b> – 2:00pm Tues. Fall Foliage Scenic Train                                   |
| <b>October 17, 23, 24</b>  | <b>Medina, NY</b> – Fall Foliage Scenic Train Ride   |
| <b>October 24</b>          | <b>Rochester, NY</b> – RIT Train Show and Sale   |
| <b>October 30 – 31</b>     | <b>Medina, NY</b> – Halloween Weekend Scenic Train Ride                                      |
| <b>November 6</b>          | <b>Medina, NY</b> – <i>Buffalo Gills</i> Train (11:00am only) Excursion                      |
| <b>November 6-7</b>        | <b>Syracuse, NY</b> – Train Show and Sale  |
| <b>November 14</b>         | <b>Batavia, NY</b> – Train Show/Sale – Holiday Inn   |
| <b>November 18</b>         | <b>Rochester, NY</b> – NRHS Meeting – “ <i>The Oil Creek Rail Road Company 1860 – 1868</i> ” |
| <b>November 26, 27, 28</b> | <b>Medina, NY</b> - Holiday Santa Scenic Train Rides   |
| <b>December 4</b>          | <b>Troy, NY</b> – Rensselaer Railroad Heritage Exhibit – Open House                          |
| <b>December 4,5,11,12</b>  | <b>Medina, NY</b> – Santa Scenic Train Rides   |
| <b>January 29-30</b>       | <b>West Springfield, MA</b> – Amherst Railway Society's Railroad Hobby Show                  |
| <b>March 2005</b>          | <b>Grand Island, NY</b> – ID Meet – “ <i>Modeling the Oil Creek Rail Road</i> ”              |
| <b>March 2005</b>          | <b>Rochester, NY</b> - RIT Train Show and Sale   |



**For a detailed listing of events, go on the Internet to:**

[WWW.CAORM.ORG](http://WWW.CAORM.ORG)

Shows  
Look for dates and location

[WWW.RAILROAD.NET](http://WWW.RAILROAD.NET)

Events  
Look for date and location

[WWW.RAILROADMUSEUM.NET](http://WWW.RAILROADMUSEUM.NET)

Train Excursions

[WWW.GATS.COM](http://WWW.GATS.COM)

Great American Train Show  
Show Schedule  
Month of Year  
Look for your city

[WWW.TTOS.ORG](http://WWW.TTOS.ORG)

Calendar  
Month of the year  
Look for your area

[WWW.GSMTS.COM](http://WWW.GSMTS.COM)

Great American Model Train Show  
Dates and Events

[WWW.TRAINS.COM](http://WWW.TRAINS.COM)

Schedule of Events  
Events

[WWW.MODELRAILNEWS.COM](http://WWW.MODELRAILNEWS.COM)

Events  
Look for your area

[WWW.FINGERLAKESLIVESTEAMERS.ORG](http://WWW.FINGERLAKESLIVESTEAMERS.ORG)

Events