



**Missouri Pacific, St. Louis-San Francisco Railroads**  
Eagle River Division

# Welcome

## The Layout

The Eagle River Division of the Missouri Pacific and Frisco railroads welcomes you! This is a prototype-based freelance model railroad of Midwestern railroading in the nineteen-seventies. Structures, scenery, signs, industries, engines, rolling stock, operating schema and vehicles are representative of that era.

Layout construction began in the fall of 2008. Extensive redesign took place in 2013 to improve the track plan for better operations. The current layout is spread between 3 rooms and was constructed with wide aisles to comfortably accommodate operators and visitors.

## Train Operations on Main Layout

Lenz digital command control is used for power management and train detection. Signals are managed over a CTI-Electronics network. Both systems interface with a personal computer running JMRI. Most consists include at least one sound-equipped locomotive. Other ambient sounds may be heard around the layout.

The layout's linear track plan includes one large classification yard, and interchange with other railroads, and a couple of small local yards. An era-appropriate computer-based centralized traffic control (CTC) system and dispatcher-controlled signals manage mainline train movement. A telephone intercom system is provided for communication between the dispatcher, the yardmaster, and various layout locations.

Car forwarding is managed using JMRI Operations software in "real time". Some manifests and switch lists are generated during the operating session. They are formatted and printed using Manifest Creator software.

Up to 8 operators assemble to operate the railroad. Operating sessions are held about every 6 weeks. While numerous commodities are transported across the system, visitors and operators will see an abundance of grain and grain products moving in covered hoppers. Other commodities transported include coal, merchandise, machinery, refrigerated perishables, and general freight. The layout is focused on local switching and yard operations, with no manifest freight or passenger service during sessions.

## Main Layout Specifications

<b>NAME</b>	Eagle River Division
<b>SCALE</b>	HO (1:87)
<b>STYLE</b>	Double Deck
<b>ERA</b>	1970s
<b>HEIGHT</b>	40" -55"
<b>TRACK</b>	Code 100 and Code 83
<b>TURNOUTS</b>	Mainline: No. 6 and 8; Spurs: No. 6, 5, and 4.
<b>MIN. RADIUS</b>	22 inches
<b>MAX GRADE</b>	2.8%
<b>CONTROL</b>	Lenz DCC, CVP Wireless throttles
<b>TRAFFIC</b>	Tomar, NJ, Oregon Rail, Custom-built signals; JMRI CTC panel, CTI-Electronics network
<b>CAR MOVEMENT</b>	JMRI Operations Software

## FAQ (Frequently Asked Questions)

Non-painted layout backdrops are a combination of preprinted backdrops from SceniKing and Backdrop Warehouse. Some building flats and backdrops are from Angietracksideflats, an eBay seller.

The main level of the layout is divided into 2 power districts and 4 breaker subdistricts. DCC circuit breakers are PSX Power Shields manufactured by DCC Specialties.

The signal network uses SignalMan Control Modules to drive signal LEDs, and is manufactured by CTIElectronics. Each Signalman module controls up to 16 signal lamps, has built-in signal brightness adjustment, synthesized yellow tint adjust for bipolar LEDs, and onboard current limiting overload protection.

Non-bipolar layout signals are common anode and manufactured by Tomar, NJ International, and Oregon Rail. The 3-headed signal at Riverside Junction was built by Richard of [Custom Signal Systems](#).

In April 2020, a network of Arduinos was added to control some signals and servo motors. An Arduino-based speedometer and train scale were also added to the layout.

Visit the Eagle River Division online at [mopacmike.com](http://mopacmike.com) or [mpmrr.net](http://mpmrr.net)  
And on FaceBook at <https://www.facebook.com/eagleriverdiv/>

Revised April 2020