

The Railway  
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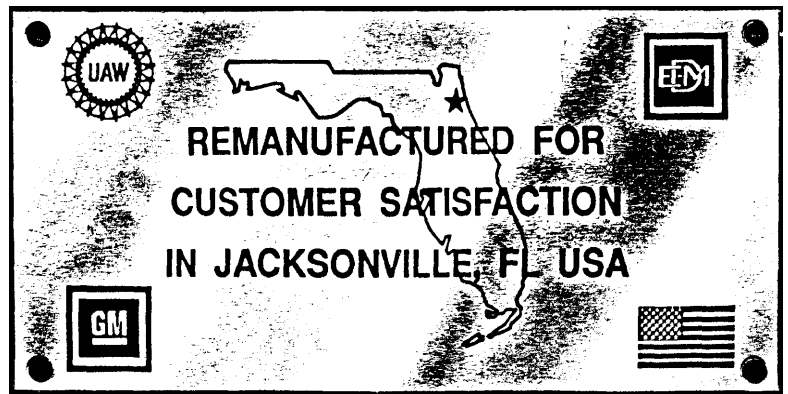


& Locomotive  
Society, Inc.

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# EMD Tour - June 26th

A major international railroad shop in Jacksonville? Diesel engine rebuilding? Yes. Seventy five of Jacksonville's finest workers do it five or more days a week. General Motors Corporation has an Electro Motive Division plant here that rebuilds railroad locomotive prime movers. Don't look for the rest of the engine here because just the Diesel engine itself is rebuilt here.



International? Yes. They arrive, all by truck, primarily from the western hemisphere, from Canada to Brasil. They come in three basic sizes according to the cubic inch displacement of each cylinder: 567, 645 and 710. The cylinder, with it's piston and connecting rod, is a separate package called a "power pack" rather than being part of the engine block. Therefore, the power packs can be replaced individually as necessary for temporary repairs or as a group for rebuilds. Usually the engine block will hold eight, sixteen or twenty such power packs in a V configuration.

Diesels are two-stroke engines, that is, there is just a compression stroke and a power stroke for each cylinder, thus, a power stroke for each single rotation of the crank shaft. Slightly com-

pressed air from the turbocharger is admitted all around the cylinder when the piston is in it's lowest position. As the piston moves up it compresses this air into about 1/16th of an inch space at the top of the cylinder heating the air to well above the flash point of the fuel/air mixture. Then diesel fuel is injected as the piston starts it's power stroke. The fuel burns relatively slowly putting rather even pressure on the piston. Just before the piston reaches the air intake ports, the four exhaust ports on the top of the cylinder are opened. It takes just 1/4th of a turn to start a Diesel engine (after two turns to purge the cylinders).

Both the engine blocks and the power packs  
**Continued on page 4**

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# AMTRAK's Swift Swede in *THE FLORIDA PANHANDLE*

On the hot, sunny morning of Thursday, June 10, 1993, AMTRAK's leased X2000 is waiting to depart Jacksonville's AMTRAK Station for a special run to Tallahassee. The Swedish train has completed a successful test in regular service on the Northeast Corridor and is now on a tour of the United States.

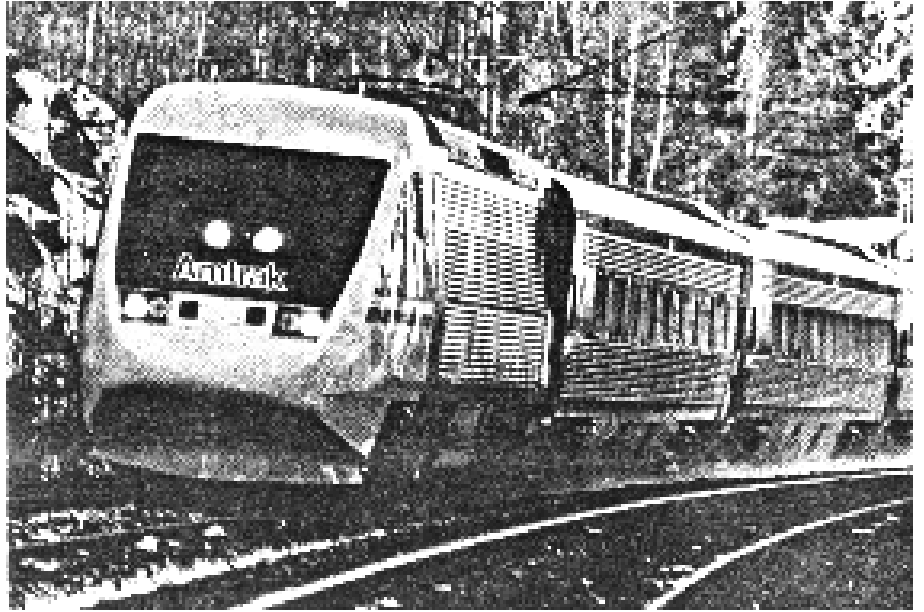
The rakish ends of X2000 give it the look of something built for fast running, but the real key to its potential for speed lies in the less visible, self-steering, radial trucks. Whereas conventional trucks keep axles rigid and wheels in a straight alignment, X2000's radial trucks allow the axles to adjust so that the wheels can follow the rails through curves. X2000 also employs a computer-controlled tilting system for passenger comfort. This tilting system compensates for centrifugal forces as the train negotiates curves at high speed.

Behind the power unit, one finds two coaches, a bistro car serving foods and beverages, another coach, and a coach with a control cab. The exterior is silver with medium blue window bands down the length of the train.

Since this electrically powered speedster is far from the nearest catenary, AMTRAK F40s 376 and 380 will push from the rear with baggage car 1241 between the diesel locomotives and X2000's power car.

All cars feature spacious and comfortable 2 and 1 seating. There are 47 seats in each of the full coaches. Each coach also has a four-seat, glass-enclosed, compartment available to groups of three or more on a first-come, first-serve basis. The entire train's capacity is 195. A wheelchair lift and a handicap restroom are available in the cab/coach on the one end of the train.

In addition to the food and beverage service available in the bistro car, airline style carts provide refreshments throughout the train. In regular service, complementary soft drinks and juices are available along with some cold sandwiches.



X2000's food and beverage cart is reminiscent of the "rolling buffet" used on the Memphis section of L&N's *Pan American* in the 60s.

Digital information boards at the ends of each car keep passengers apprised of such things as the next station stop and the train's speed. AMTRAK ran X2000 at speeds up to 135 mph in the Northeast Corridor. The ride quality at this speed proved to be outstanding. Passengers didn't sense that they were hurling down the former PRR trackage at breakneck speed. The X2000 is also very energy efficient. Tests indicate that it draws 50% less current from the catenary than one of AMTRAK's standard trains in Metroliner service.

Twelve of these swift Swedes are in service in their home country between Stockholm and Göteborg, and Stockholm and Karlstad. The X2000s make the 283 mile run between Stockholm and Göteborg in three hours for an average speed of 94.3 mph. In view of the enthusiastic response of AMTRAK's passengers to X2000, perhaps we'll eventually see more of them operating in regular service in the U.S.A.

X2000 eased out of Jacksonville's AMTRAK Station at 8:05 am and met a northbound CSXT intermodal train at Moncrief Yard. Signals are out all the way to Baldwin, and it's 8:53 before we roll through Honeymoon Wye near downtown and

actually start heading in a westerly direction. Hon-ymoon Wye was once utilized by passenger trains arriving and departing the venerable old Jacksonville Terminal.

As we roll past the former site of SAL's West Jacksonville Shops, an AMTRAK employee offers us earphones. They can be plugged into small consoles reminiscent of the seat-side consoles on newer airliners.

At 9:30, we finally reach Baldwin and cross the north-south line once used by some of SAL's finest varnish to bypass Jacksonville during the winter season. Trains using the Baldwin cutoff were shown in timetables as operating "via Gross", and those trains included the all-Pullman *Orange Blossom Special* and the *Silver Star*. South of the diamond, we get a quick glimpse of CSXT's huge classification yard at Baldwin.

West of Baldwin, the code line is operating, and we can run at the track speed of 79 mph. This former SAL line has CTC as far as Tallahassee, but beyond the State Capital, it's dark territory. The SAL/L&N *Gulf Wind* ran over this route between Jacksonville and New Orleans until the advent of AMTRAK, and AMTRAK has now restored passenger service across the Florida Panhandle in the form of the transcontinental *Sunset Limited*.

The AMTRAK special zips by Olustee Battlefield where Confederate forces halted the

Union Army's westward advance across Florida. At 10:08 we reduce speed for Lake City and cross the Norfolk Southern line that once extended all the way to Palatka on the Florida's East Coast. This former Southern Railway line was once the route of the seasonal Florida *Sunbeam*. Southern ran the *Sunbeam* to the obscure junction of Hampton, FL, where it was turned over to SAL for forwarding to Miami. On the west side of town, we pass the new platform and modest concrete block passenger shelter that were installed for the *Sunset*.

X2000 returns to the 79 mph maximum speed west of Lake City and races through the rural scenery that features live oaks festooned with Spanish moss, mimosa trees in full bloom, grazing cattle, and at 10:38, the famous Suwanee River.

Virtually all of the yard tracks at Live Oak have been pulled up, but the huge old white wooden freight house looks to be in excellent condition. The brick passenger station has been relocated to a new site just north of the freight house. The freight house sits alongside the former right-of-way of the east leg of the wye that led to the now abandoned branch to Dupont, GA.

The fast running ends just east of Madison, FL, where we encounter a major rail relay project. CSXT is replacing 45 miles of 115 pound jointed rail with 122 pound continuous welded rail ("cwr"). Although the *Sunset* will obviously benefit from this work, the track upgrade is not a result of the new AMTRAK operation and is not one of the projects funded by AMTRAK or the State. Much of the cwr for this project came from the abandoned portion of the former L&N Lebanon Branch between Mount Vernon and Sinks, Kentucky. When this rail relay project is completed, it will eliminate the last of the jointed rail on CSXT's route between Jacksonville and New Orleans. Maximum speed through this 45 miles of track work will be 50 mph with some more restrictive speeds and stops in various places.

At 11:38 we pass the location where our ex-SAL line once crossed ACL's Perry Cutoff. The Perry Cutoff was completed in 1928 as a short route for hauling phosphate from Florida's Bone Valley to the Midwest. ACL also had hopes it would become a profitable passenger corridor between the Midwest and the West Coast of Florida. The *Southland* operated via the Perry Cutoff from

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1928 to 1957 and handled West Florida cars in conjunction with several connecting trains that operated between the Midwest and Florida's East Coast. Today, most of the once heralded Perry Cutoff is abandoned with a short segment operated by Florida West Coast Railroad Co. At the former SAL/ACL crossing at Drifton, weed grown right-of-way stretches north and south, and two old boxcars used for storing maintenance-of-way equipment sit forlornly on surviving vestiges of sidetracks.

X2000 arrives in Tallahassee at 12:22 and receives a festive reception from a huge crowd. CSXT maintenance-of-way forces are utilizing the old brick passenger station, and AMTRAK is refurbishing the old freight house as its passenger facility. The former freight house is also a solid brick structure with huge arched doorways typical of such buildings. A new platform is in place alongside the freight house, and the new train shed is amply decorated with red, white and blue balloons. The passenger station is a bit removed from downtown area because the railroad had to skirt the city's hilly topography. At the station, however, one is within sight of both the Florida A&M and the Florida State campuses.

The Tallahassee contingent boards the train for a short roundtrip to Drifton, and our group heads off for a quick lunch. At 2:08 we're back on board and on our way back to Jacksonville. The F40s are on the point now, and several of us spend considerable time in the cab of the rear control car. We note that the AMTRAK locomotive whistles are much more melodious than the bleating horns on the Swedish trainset.



As we cruise through the cypress swamps east of Tallahassee, it's obvious that X2000's air conditioning plant is fighting a losing battle with the heat and humidity of a summer day in Florida. Project manager Jan-Olof Haggblad from ABB Traction notes that "Our air conditioning plant wasn't designed for this tropical climate." Despite the heat, it's fun to watch the digital speedometer hovering near 80 as we sail across the Panhandle. The ride is indeed very quiet and smooth.

After we return to Jacksonville, Jan-Olof will get a few weeks leave back home in Sweden, and X2000 will continue on to the Midwest and West Coast. Later this year, AMTRAK will also test the German InterCityExpress—better known as the ICE train—and compare it with the Swedish product. One wonders if it will be cooler inside the ICE train on hot summer afternoons!

—Lyle Key

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## EMD Tour - June 26th Continued

are rebuilt in this plant. Normal turnaround for a complete engine is 90 days, but a RUSH JOB 30-day turnaround can also be done. Not bad for a shop working with cast-off machinery from La Grange. Complete engines are "better than new" after rebuilding as all of the weak spots are exposed and repaired.

Arby Vandenbossche was again our tour organizer. About twenty four people from both the North Florida Chapter of the National Railway Historical Society and the Southeast Chapter of the Railway & Locomotive Historical Society were on the tour.

—Cliff Vander Yacht

# Ocklawaha River Steamboats

Mr. Edward A. Mueller of Jacksonville gave an interesting talk at the July meeting on the history of steamboat operations on the Ocklawaha River from 1835 through the 1920s. Although steamboat history seems to be far from railroad history at first glance, many of the predecessors of CSX Transportation were involved with steamship operations on the Great Lakes, Hampton Roads and the Ohio River. The Ocklawaha River steamship operations were not operated by railroads; however, they were supplanted by them.

Mr. Mueller's history covered the following points:

The Second Seminole Indian War and the related steamboat travel—1835-1842.

Early river activity including rafting and the use of pole barges.

Civil War days and blockade running.

Postwar navigation improvements.

The dominance of the Hart Line for 25 years.

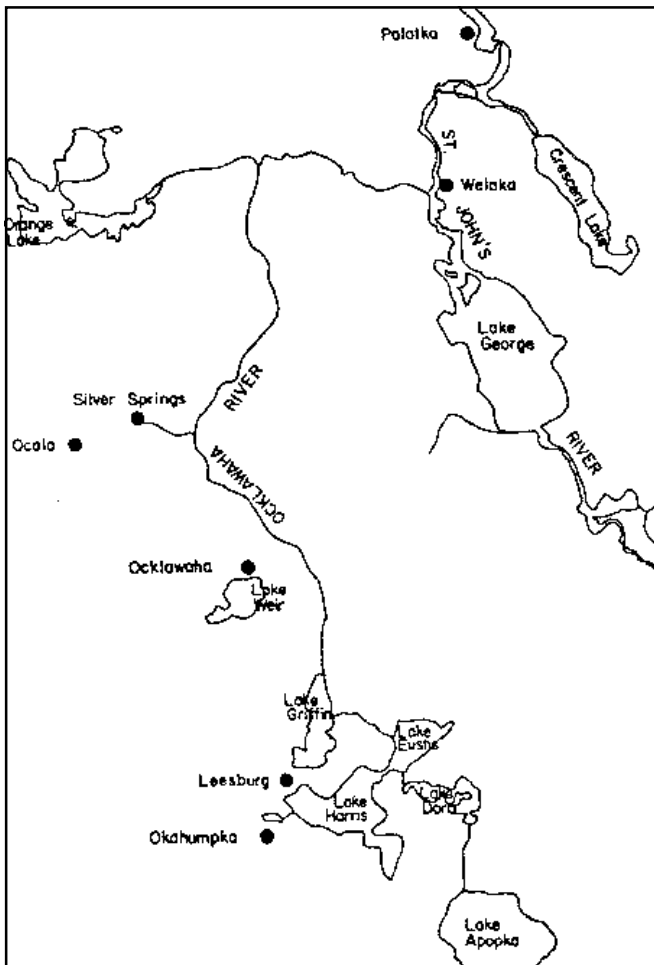
The competitive era of the 1890s.

The declining days of the 1910s.

The emergence of gasoline-powered craft in the 1910s and 1920s.

End of steamboat activity.

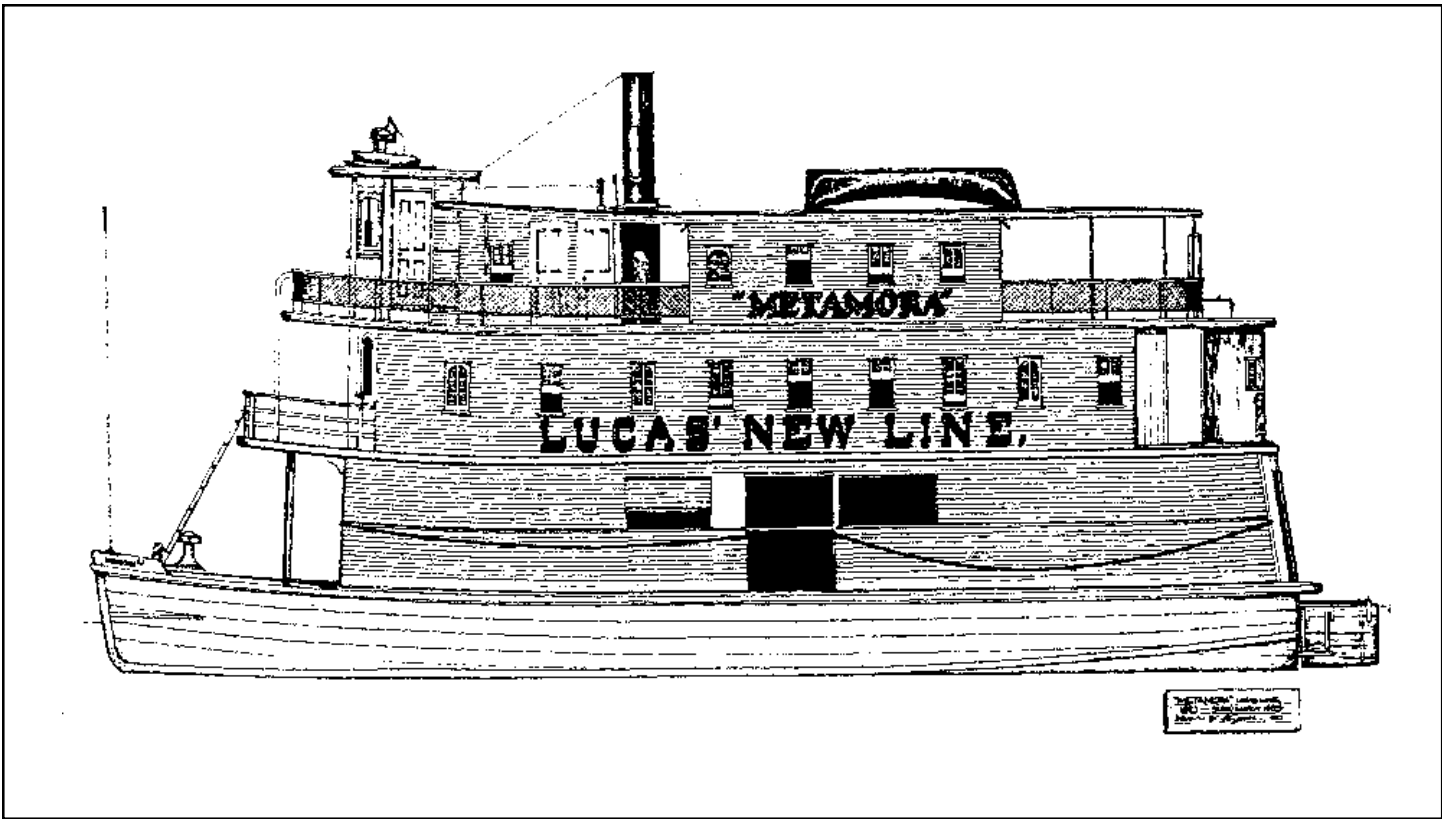
Steamboat travel provided was from Palatka and Welaka to Silver Springs, and to a lesser extent to Leesburg and Okahumpka. River depths of 3.5 to 4 feet up to Silver Run governed the maximum size of the boats. A depth of about 2 feet to Lake Griffin meant that only the smaller boats were used in this region (see map).



The boats were built upwards in layers over a period of time depending on the volume of traffic. The hull was fitted with the machinery and covered, including the recessed stern paddle wheel, to protect the contents and passengers from overhanging branches on the narrow and winding river. Power was provided by a wood-burning, horizontal boiler and a pair of steam engines turning the paddle wheel. Some passengers could be accommodated on the first deck along with any freight being hauled. The pilot house was usually on the second deck. For additional passenger accommodations, small staterooms were added as needed to the second deck, and when this deck was full, the pilot house would be moved to the third deck. The third deck was seldom filled out completely with staterooms as shown by the outboard profile of *Metamora* on the last page.

The talk was illustrated by many slides and was enjoyed by all present. We wish to thank Mr. Mueller for his presentation.

—Cliff Vander Yacht



The *Metamora* (#92487) was 87'x21.5'x3.4' and 165.07 gross tons.