

DANVILLE FLYER

A PUBLICATION OF THE DANVILLE JUNCTION CHAPTER, NRHS

The DANVILLE FLYER is published monthly by the DANVILLE JUNCTION CHAPTER of the NATIONAL RAILWAY HISTORICAL SOCIETY for its members and other interested persons.

The DANVILLE JUNCTION CHAPTER, NRHS, is a not-for-profit corporation organized to preserve the history of railroading in Eastern Illinois and Western Indiana and operates a museum located in the former Chicago and Eastern Illinois Railroad depot on East Benton Street in Rossville, Illinois. The museum features many railroad displays plus a operating HO model railroad.

Membership in the Chapter is open to anyone having an interest in any aspect of railroading. Dues per year are \$12.00 for Chapter membership in addition to \$14.00 for NRHS membership. Meetings are held on the third (3rd) Thursday of each month (except July, August and December) at the Palmer American National Bank, corner of Vermilion and Main St., downtown Danville, Il. beginning at 7:30 PM Central Time.

OFFICERS FOR 1994

Our 26th Year

PRESIDENT: Larry Prosser

SECRETARY: Doug Nipper

NATIONAL DIRECTOR: R. M. Schroeder

MUSEUM DIRECTOR Doug Nipper

EDITOR: Richard M. Schroeder

P.O. Box 1013

Danville, IL. 61834-1013

VICE PRESIDENT: Dave Sherrill

TREASURER: Allen Cooke

PROGRAM CHAIRMAN: William Darner

HISTORIAN: Jesse Bennett

PUBLISHER: Allen Cooke

Cooke Business Forms, Inc.

John Cooke Sr., Honorary Member

MEMBER: Illinois State Historical Society

Association of Illinois Museums and Historical Societies

Volume 25

December 1993

Number 11

COMING EVENTS

January 20, 1994

Regular monthly meeting at PALMER AMERICAN NATIONAL BANK, DANVILLE, IL, in downtown Danville, beginning at 7:30 PM.

February 19, 1994

LGB Show in Lincoln Square Mall, Urbana, IL. 10 AM to 6 PM. LGB trains only, no swap tables.

March 26 & 27, 1994

Annual Model Railroad Show and Swap Meet, Urbana's Lincoln Square Mall, Urbana, IL. Contract Fred Schlipf at Urbana Free Library for tables for the best show in East Central Illinois.

June 20-26, 1994

NRHS Annual Convention, Atlanta, GA. Start planning now.

NEXT MEETING

The January meeting will be held at the Palmer Bank, corner of Vermilion and Main Street in downtown Danville beginning at 7:30 PM. This will be the first meeting of the new year.

Depending upon the weather, Rick Schroeder will present slides of the Springfield relocation project and a visit to the model railroad layout in Batavia, Illinois.

MEETING MINUTES

- NOVEMBER 18, 1993

PALMER BANK

Meeting opened at 7:30 P.M. President Larry Prosser presiding. One guest, Stan Maddox of the C&IM Chapter, was present.

Treasurer's report was read and approved. Since the secretary was absent from the October meeting, there were no minutes. However, it was mentioned that topics discussed at that meeting included the Christmas Banquet, the Model Show, and Larry's appointment of the Nominating Committee.

OLD BUSINESS

John High reported that the Model Show set for the upcoming week-end had been canceled due to lack of table sales. Will have to move the show to Civic Center or Ramada Inn to make a go of it next year. Rick Schroeder suggested that the Show Committee meet soon to set a date and pick a location... Banquet set for Dec. 5th, 1-5 P.M. at Jocko's Pizza Inn. Program will be from Mike Vice, presented by Rick, of western railroading.

Dave Sherrill presented the Nominating Committee's report. All incumbents were re-nominated. After calling for nominations from floor for each office, Larry declared the slate elected by acclamation.

NEW BUSINESS

Rick has met with the Operation Lifesaver representative. Our Chapter can be involved in this by helping with displays at various locations. Contact Rick if interested... Guest, C&IM Chapter President Stan Maddox mentioned his organization's involvement with Operation Lifesaver. They have a member completing courses to become an instructor. Stan also told us of a meet in Springfield in May or June of next year that will tour the C&IM Shops. Our members are invited to attend.

Meeting adjourned at 7:54 P.M. Slide program of Great Britain and some of its railroads was presented by Bob McQuown.



**HAPPY HOLIDAYS TO
ALL FROM THE
OFFICERS OF THE
DANVILLE JUNCTION
CHAPTER, NRHS**

THE STANDARD CLOCK DECEMBER OF YEARS PAST

This will be the final installment of this column. Sorry to have missed the September, October and November issues. It is an irony that on our 25th year we were forced to cancel our annual model railroad show. But that too becomes part of our history...

1970 - The L&N is rebuilding Brewer Yard. Plans call for a new yard office, engine servicing facility and car repair yard. Danville Industries is very interested in having the L&N move out of Oaklawn Shops as they need the room. Last week, D.I. had Trailer-Train cars stored at Rossville and Hoopston because of no room here. At the present time they are doing work for the Western Pacific, Kansas City Southern, Trailer-Train plus many other leasing companies.

1972 - 28 members and wives attended the Christmas Dinner held at the Grier Lincoln Hotel on the 8th. Mr. Bill Tesch, guest of the evening,

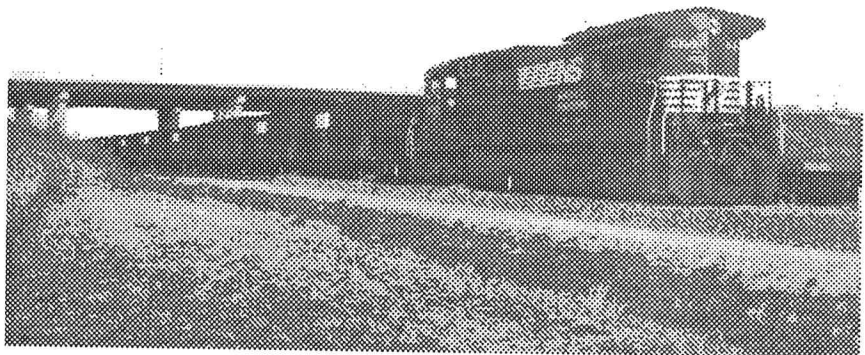
related some of his many experiences during his long years of employment with the C&EI. Rick Schroeder explained to the newer members the reasons for naming our chapter Danville Junction. He then presented his (now famous) Danville Junction slide / tape program.

1987 - The first issue of the *FLYER* using desktop publishing and copier reproduction was put out. Allen Cooke became our Publisher, using the Xerox machine at Cooke Business Forms to produce each issue.

25 years is a milestone for any organization. In this column we have presented brief "bits" of our history for each month. Hope you enjoyed it. Stick around for the next 25!



NS C40-8 #8753 is spotted overnight at the SP connection under Veterans Parkway, Springfield, IL on November 17 waiting to unload ballast



CONRAIL-NS START SERVICE LINKING NEW ENGLAND, SE

Conrail and Norfolk Southern will inaugurate a new intermodal service between New England and the Southeast on November 1 that will make available for the first time third morning service between New England and Upstate New York points and the Southeast.

As part of the new service, a new train will be operated between Cincinnati and Columbus, Ohio. It will connect with existing NS and Conrail intermodal service at Columbus and new NS intermodal service at Cincinnati by way of NS's terminal there.



The two railroads will share assets to offer the improved service. The train will use NS equipment operated by Conrail personnel over Conrail tracks, relieving pressure on a crowded NS line to the West.



"This is part of our ongoing efforts to improve intermodal service east of the Mississippi," said James A. Hagen, chairman, president and CEO of Conrail.

"While railroads have scored impressive competitive gains in longer haul markets, a huge potential also exists in shorter hauls. New services like this one will allow railroads to serve short haul markets better," Mr. Hagen added.

"We must improve service to our customers, yet use our assets wisely," said Dave Goode, president, chairman and CEO at NS. "This is the kind of breakthrough that can boost both goals when railroads find ways to work together. It's a very exciting development, and we will continue to seek more opportunities like this."

Via Rail News Update

SPRINGFIELD RELOCATION

On December 9, 1993 at 6:30 P.M., the first revenue train operated over a portion of the relocation project from a temporary turnout installed in the Southern Pacific mainline just north of Hazel Dell road to just west of Veterans Parkway where the new track connects with the existing trackage. The project is being constructed to reroute the Norfolk Southern mainline and the Southern Pacific's "Airline" around the south side of Springfield. However, the first train was Illinois Central 9632 with 50 empty grain cars for the elevator at Currans, about 4 miles west of Springfield.

The new trackwork has not received final surfacing and won't

until spring. However, in order to proceed with the East Track segment the Airline had to be removed near K.C. Junction and the State of Illinois and the S.P. came to an agreement to begin operation on the new track prior to completion.

In the afternoon of the 9th all parties involved conducted a walk-through inspection of the line. The contractor completed some minor work, the S.P. installed locks, clamps and spikes on the turnouts along with block limit signs and by evening the line was ready. On hand to follow the first train through the project were Mike Garcia of the Bureau of Railroads, Bill Guins, Byron Jenkins and Dave Story of the Southern Pacific, Tim Dixon resident engineer for IDOT and Rick Schroeder of WVP Corporation rep-

resenting N.S. No ribbons were cut this time as that will be saved for next summer.

Once the cut-over was started to connect the Airline the contractor began removing the old track west of Route 4. The "plug" was removed and roadbed and track work was begun to connect the line already constructed for the future N.S. mainline. This portion will be completed next spring.

The East Track segment is ready for trackwork for about one-half mile south of Iles Avenue. The contractor plans to begin some trackwork after the first of the year. Weather has shutdown the grading over the portion south of the Airline. Both NS and SP have delivered rail to the site but OTM will not be delivered until the first of the year. The schedule still calls for Iles Tower to be closed around April 1 with cut-over for both railroads around July 1. Bids will be let in February to remove the Airline at Chatham Road and in July to remove the NS bridge over Chatham Road.

Rick Schroeder

UNION PACIFIC RAIL REPORT

LAVA HOT SPRINGS, ID

By Mike Vice

Cattle Too Close for Comfort.

On Sunday, November 7th, I was out rail fanning my area and had just shot an eastbound empty grain train lead by SD40-2s UP 3198 and CSX 8191 and was on the chase to shoot him at other locations. I took my last shots at MP 175 as he rolled toward the Hot Box at MP 174. After his Hot Box readout, (axle cnt 396, 36 mph, and 42 degrees F) he called the East-End Dispatcher (Pocatello) to report cattle on the right-of-way and that he hit one and knocked it down into the Portneuf River.

Since I was within one mile of this

location, I drove to MP 174 to check on the animal and to be sure that no others were on the tracks. Upon my arrival, I saw four steers climbing out of the river bank onto the tracks. To my surprise and relief, none of the animals were hurt. I opened the gate to the pasture and tried to herd the steers back in. Luckily, at this time, the local ranchers arrived to assist my efforts which were not going well.

Between the three of us, we did put the steers in their rightful place, and in due time. Just as we closed the gate, eastbound HKNPP (Hermiston,OR to North Platt,NB-Produce Train) was in sight.

New C40-8Ws and SD60Ms arriving on the Green River Division.

I've been noticing more of the freshly painted C40-8Ws and SD60Ms assigned to duty on the Pocatello Sub of the Green River Div. The C40-8Ws are in the 9500 series and the SD60Ms are in the mid to upper 6300 series. Those units that I have taken slides of are 9505 & 9506, and 6363.

**SANTA FE RY
INTRODUCES
SOUTHEAST
CONNECTION**

Santa Fe Railway, CSX Transportation, Kansas City Southern Railway and the Modesto and Empire Traction Co. have introduced a five-day-a-week expedited boxcar service from California to consumer markets in the southeast. The new service became effective on September 22, 1993. Named the Southeast Connection, the new service will provide consistent, reliable and economical transportation for beverages, food prod-

ucts, perishables and other time-sensitive commodities.



"Southeast Connection cuts up to three days off the regular transit times for boxcar service between California and the southeast," said Paul Newborne, CSXT's director of marketing-food products. "Our test runs demonstrate we can consistently deliver shipments to customers in Alabama and northern Florida in nine days, and to Georgia, the Carolinas and southern Florida in ten days.

The M&ET pre-classifies loads to delivery to Santa Fe.

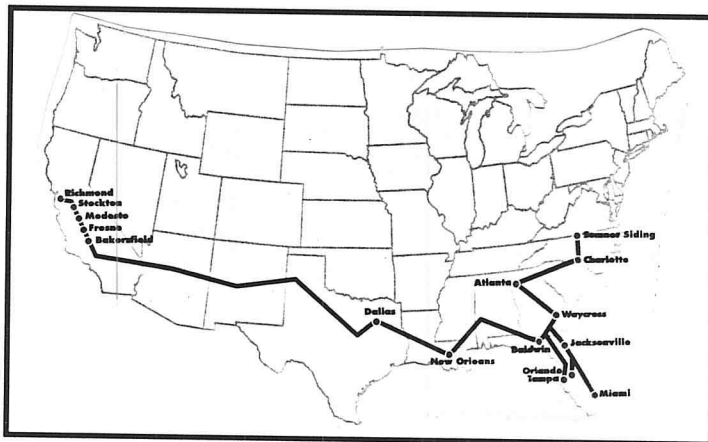


"This simplifies handling procedures along the route, avoids stops at classification yards enroute and speeds up switching at interchange points, said James L. Beard, M&ET president and CEO.

Southeast Connection is similar to Santa Fe's successful Coast Connection service for California and Northeast perishables markets. since its inception in 1989, Coast Connection has become the industry's quality benchmark for boxcar service between California and consumer markets in the Northeast.



Via Santa Fe Railway News



WHEEL REPORT

FLYER ARTICLES - As you may have noticed, this issue and the last one contained articles by several members. The recent begging by your editor did some good. I really appreciate the news articles sent by members and try to put each one in an issue. It is great that the out-of-town members are letting us know what they have been doing and what is going on in their area.

For you computer buffs the last issue was one of the biggest I have done, as far as bytes of information that is. The last issue contained over 3.4 meg of data. Each month I try to put in some photos and cuts. Last month was an exception especially with the help of other members.

I have gone to stapling the newsletter in the corner and taping the issue shut. The reason is the post office and their requirement coming soon for the elimination of staples. They have been jamming the new equipment and the regulations coming in 1994 will not allow staples to seal the newsletter.

Time to prepare and send? The last issue probably took 30 hours to prepare for Allen to copy and another 3 hours is required to assemble, fold, label and stamp for mailing. My God, almost a 40 hour week (per month) just for a volunteer newsletter. Anyone else want to take over? No, I'm not ready to give it up. Most of the time I enjoy putting the newsletter together. The real enjoyment comes from the

comments I receive from the readers. (All editors feel this way) Thanks!

RAIL! - Over the years many of you have ask me about rail and what the markings mean on the side of each rail. In this issue there is the first part of an article that will tell you how rail is made and what the markings mean. Without rail every railroad would not exist. This article should give you a better understanding of the basic part of the industry.

SOUTHERN PACIFIC LINE FOR SALE? - The rumor mill has the Southern Pacific indicating they want to sell the St. Louis to Chicago portion of the SPCSL. This rumor was heard from two sources at a recent railroad show and then from a very high officer of Norfolk Southern. Indications are also that the branch line from Wood River to downtown Alton will be offered to a shortline (probably the GWR). The S.P. would like to operate over the Illinois Central from Memphis to Chicago. Note, Mr. Moyers was with the I.C., owned stock and still does, now is with the S.P. Seem strange? Trackage rights would be kept on the line.

Who would buy the line? Probably the State of Illinois or Amtrak (if funds were available). This line is designate d for high speed rail and with the rehabilitation financed by the state and the feds what better time to sell, at a improved value. with all of the job cuts and management changes don't be surprised if this comes true.

ATLANTA STEAM TRIP IN JUNE. - One of the locomotives that is being invited to Atlanta is Frisco #1522 from St. Louis. The St. Louis Chapter is considering sponsoring the trip to Atlanta via Memphis and Birmingham. Return trip is not certain at this time. Plans may include chartering one car for Central Region Chapters. We will keep you posted on their plans. *Via St. Louis Chapter.*

NOTHING LASTS FOREVER - The Chicago and North Western has announced that the locomotive shop in Oelwein, Iowa will close at the end of the year. The shop, opened in 1899 by the Chicago Great Western, is located at a stub of the former CGW St. Paul to Kansas City mainline.

The longtime landmark in north Denver, the neon "flying" Rio Grande sign, disappeared from the North yard tower and was replaced by a small unlighted Southern Pacific sunset emblem.

On October 4 Conrail closed down classifications at the historic Enola Yard in Harrisburg. Included in the shutdown were support facilities including car inspection and repair. Employees will be allowed to transfer to other locations.

Above via NRHS NEWS.

MORE TOWERS TO CLOSE - Work is in progress to finally close Pence (MG) tower in Momence, Illinois. This process was started a few years back but Conrail held back as Pence was the last tower on the system between Gibson Yard and Streator. Times have changed and the plan is to make the cutover around the end of February 1994. Much of the wiring is in place and additional cabinets are being set for the controls. Presently Pence handles the crossings at Kankakee and Dwight by calling the other dispatchers to get trains across. After closing the Conrail dispatcher will be the engineer's only link to get across.

Also in the works are plans to close Hartsdale, Burnham and Hick (crossing of IHB) towers. The prospect is good that these will close in 1994 or early 1995. Very few Conrail towers will be left in the Chicago area. *Via Allen Cooke and John Dunne*

NS WINS AT DANVILLE JUNCTION - On November 28th, early in the morning, NS won the race to Danville

Junction. While on the way to breakfast I heard CSXT #795 call signals at Bismarck. About the same time NS #122 was coming at Catlin and called the CSXT dispatcher in Jacksonville to get across at Danville. The dispatcher's radio was poor and the conversation never indicated that he had heard the NS train.

I decided to stop at North Yard and wait. Very soon the southbound CSX train crossed Voorhees Street and called the dispatcher to get the signal at Danville. They were told he was lined for an NS train about 2 minutes away (not in sight yet). They blocked Voorhees and about 7 minutes later #122 with NS 5020 and 7025 proceeded upgrade through the interlocking. Upon clearing the southbound got the clear signal and proceeded to Brewer Yard behind Conrail 6097 (Dash8-40CW) and Conrail #6043. It was about time that CSX had to wait.

ICC HEARING on the UP/CNW proposal will be held this month. The hearing will be limited and will not include either expert testimony or cross-examination of witnesses. The main purpose of the hearings will be to receive comments from elected officials, state and local governments, businesses and members of the public.

CHAMPAIGN NOTES: Bruce Bird reports that the IC Operation Life-saver locomotive, GP38-2 #9534, was working the yard and locals for several days around Nov. 3. A few days later it was back out on the road. Also, on the 8th of November a westbound was spotted on Conrail headed by 3-BN SD40-2's. The train was hauling 50 empty IWCX Potash cars.

From J D Cooke comes word that the train originated in Indianapolis and came via Terre Haute, Paris and Danville before heading to the BN at Peoria. Several of us missed this train.

HOT NEWS - The S.P. is making an inventory of the track between Chicago and St. Louis. All sidings and yard tracks are being measured for possible elimination (sound familiar). The word has come down from the top that all excess property will be disposed of. We have also heard that work is proceeding north of Gibson City on the I.C. to be sure clearances will handle stack trains coming off the Norfolk Southern. These will be stack trains that NS will receive from the S.P and deliver to the I.C. It is known that the B.N. would like to get S.P off the Kansas City to Chicago corridor. The new service will not occur until 1994 if it comes about.

SOUTHERN PACIFIC NEWS

The Southern Pacific has filed notice with the Interstate Commerce Commission to abandon a 196-mile line between Owensville, MO and Leeds Junction, near Kansas City. The line was constructed in the late 1880's and hasn't carried traffic since 1980 when the line was acquired by the SP from the Rock Island Railroad. At the time the estimated cost of rehabilitation of the line was \$50 million, which was not economically justified. The line also became unneeded when the SP was granted trackage rights over the Union Pacific in 1983 between St. Louis and Kansas City. Several proposals have been advanced for use of the corridor, including making it a recreational trail.

The Southern Pacific will continue the extensive upgrading of its locomotive fleet by agreeing to acquire 133 remanufactured locomotives from Morrison Knudsen Corporation. Delivery of the SD40M-2's, rated at 3,000 horsepower, is to begin during the first quarter of 1994 and be completed by year's end.

The acquisition is an important step

in the SP's desire to provide service reliability to its customer's. In addition to the above addition to the fleet recently the SP ordered 25 new GP60 and 25 SD70M high horsepower units from EMD. Deliveries are to start the end of November and be completed in June of 1994. Burnham Shop is also scheduled to rebuild about 200 locomotives in 1994 and conduct heavy repairs on another 100 units. The SP still leases a large number of units from several sources.

Via SP Update and D. Smith

CHAMPAIGN NEWS

By Bruce Bird

Just a note on things along the Mainline of Mid-America: operations are pretty much back to normal after this summer's floods. Occasionally a lease or foreign unit will show up in the Champaign yards. Visitors during October were a Union Pacific GP40 (dead on the ready track), a GATX SD40-2, and the occasional set of Conrail power for the Wheatfield, IN coal trains (sometimes with new wide-cabs).

By far the most interesting thing to happen occurred on September 11. The northbound *City of New Orleans* was running an hour late due to a broken rail in Centralia, allowing it to arrive in daylight in Champaign and allowing local railfans to get good pictures of the new Genesis series loco #805 on the point. The train made its normal station stop but when the highball came the shiny new "appliance" from GE did not budge.

The crew tried in vain to understand what the diagnostic computer was saying to them, but after numerous defaults that always returned them to the same menu they decided to call Amtrak's Power Desk in Chicago. One crewman went into the station with a portable radio, called Chicago by phone, and relayed instructions outside to the

crewman in the locomotive. After trying everything Chicago suggested and failing, things began to look desperate. Almost half of the passengers that boarded in Champaign had asked for their money back so they could drive to Chicago, and the Mattoon turn had been patiently waiting in the yard to go south for almost an hour.

In a final desperate move the crew decided to call the GE rep in New Orleans (where the units are based). By this time the dispatcher discovered he had a dead train blocking his main and directed the Mattoon turn to remove their third loco (an SD20) and give it to the "City". Also by this time (almost 10 o'clock) a veritable horde of railfans were present and were quite entertained by the show the IC was presenting. One cracked that just the sight of an old, beat-up, non-turbocharged, black IC SD20 would be enough to scare the life back into the Genesis loco. Almost on cue, as soon as the dispatcher had lined the SD20 across the Conrail diamond, the Genesis loaded up and roared to life! After a few more diagnostic checks, the "City of New Orleans" slid out of town after 2 1/2 hours of delay and running 3 1/2 hours late.

While everyone did get some excellent photos of the new unit, they left scratching their heads why the dispatcher didn't try to drag the train into the yard earlier, and why the Amtrak crew was so easily bested by the machine. Apparently someone didn't pay attention during their DOS lesson.

After seeing the new loco up close I can verify that it is a tremendous machine but exceedingly ugly. I would hope Amtrak will schedule more computer training sessions for the crews.

RAIL

The T section rail of today has a girderlike shape. Its height is usually greater than its base, the web is thin, and the head is deep and narrow. Rails are designated by weight and section. In the United States weight is expressed in pounds per yard. In countries using the metric system the unit is the kilogram per meter. Sections are usually designated by the name or the initial of the designing agency. Thus 115 RE rail weighs 115 lb/yd and has a cross section conforming to recommended designs of the AREA. Rails may also be designated by the steel manufacturing process (open hearth, basic oxygen, electric furnace), by the steel metallurgy (standard carbon steel, high carbon, high-strength alloy), or by features of manufacture (whether controlled cooled, heat-treated, end hardened, or normalized). The standard length of rail in North America is 39 ft. Recent developments in manufacturing processes permit rolling rails of much greater length, 82 ft (25 m) in one instance. Continuously welded 39-ft rails have formed lengths varying from 1440 ft to several miles.

CHEMICAL COMPOSITION AND MANUFACTURE

1. Composition

Rails are made of steel, and the basic element in steel is iron. With the iron are combined small quantities of carbon, manganese, silicon and less desirable elements, sulfur, and phosphorus. Each of these contributes certain characteristics to the steel:

Carbon - Adds hardness.

Manganese - Gives strength and toughness.

Silicon - Its high affinity for oxygen aids in removing gases during the pouring and rolling process.

Phosphorus - Makes steel brittle and likely to break under impact.

Sulfur - Causes breaks during the rolling process.

Rail steel must resist wear, fatigue, and plastic flow; it must be weldable. The proportioning of the elements to give the best rail steel (pearlitic-ferritic in structure) has gone through an evolutionary process. AREA recommended chemistry varies somewhat with weight (see Table 24.1). In high-silicon (HiSi) rail, one of the more common alloys, the silicon content may be in the 0.50-1.00 range. The manganese content in intermediate manganese alloy steel may be 1.30-1.60%.

Standard carbon rail steel has a Brinell hardness of 250-278; high-strength steels may be higher, 321-388. The yield point of standard rail steel is about 70,000 psi and its modulus of elasticity is taken as 30 x 10 to the 6 power psi.

2. Manufacture

Most rails are rolled from open-hearth steel produced by the so-called Siemens-Martin process, named after the men who developed it. A mixture of pig iron, iron ore, and scrap metal is placed in a shallow hearth and subjected to the intense heat of a gas- or liquid-fired furnace. Carbon and other impurities of pig iron and iron ore are oxidized and form a slag floating on the molten metal. Preheated air blown into the furnace with the fuel oxidizes the slag and the impurities from the pig iron. The slag also serves as a blanket to prevent complete oxidation of the pure metal. Phosphorus oxidizes readily in the slag, but if the slag is

chemically acidic, the phosphorus recombines with the metal as the furnace is tapped. Calcined limestone added to the charge in the furnace renders the slag basic. Phosphorus then remains in combination with the slag, and basic open-hearth steel free of this impurity is obtained.

Rails from steel made by the relatively new basic oxygen process have been approved by the AREA and are receiving wide acceptance by U.S. and Canadian railroads.

The steel is similar to the basic open-hearth product but offers economies in plant construction and production. Molten blast furnace pig iron and 25% scrap iron, with lime and fluorspar added to form slag, are charged into an upright basic oxygen furnace and the mixture is penetrated and refined by a jet of high-purity oxygen. Production time is reduced from approximately 8 hours to a little less than 1 hour.

Rail steel can be produced in electric furnaces and is also acceptable to the AREA. A kettlelike furnace is charged with scrap iron and lime and heated electrically with an arc. After 2-3 hours the molten metal is poured into a ladle and alloying elements are added to make the desired composition.

A process of recent origin subjects the molten metal to a vacuum that removes gases before becoming entrapped in the cooling metal. Vacuum degassed steel may thus

TABLE 24.1 Chemical Compositions for Steel Rail^a

	Weight Percentage Nominal Weight (lb/yd)	
	90-120	121 and over
Carbon	0.67-0.80	0.70-0.82
Manganese	0.70-1.00	0.75-1.05
Phosphorus, Maximum	0.035	0.035
Sulfur, Maximum	0.040	0.040
Silicon	0.10-0.35	0.10-0.35

^aManual for Railway Engineering (Fixed Properties), AREA, Washington, D.C., 1980-1981 revision, p. 4-2-1.

the heat number. These stampings permit ready reference to an individual rail either as to its manufacture or to its location in track, assuming that adequate laying records are maintained by the using railroad.

From the finishing mill the rail goes to the hot saw to be cut into 39-ft (or longer) lengths. Since there is an unequal amount of steel in the head and in the base (resulting in unequal cooling), the rail must be given some camber so that it will cool as a straight rail in spite of unequal shrinkage. Almost all rail is now control cooled to prevent the formation of shatter cracks and the dangerous transverse fissure that is likely to develop from those cracks. The hot rails are placed in cooling boxes when at a temperature of 725-1000 degrees F and kept there for 7-10 hours. No rails are removed until the temperature of the top layer has fallen to 300 degrees F or less.

After cooling, the rails are straightened in a so-called gag press, or, in more modern installations, in a roller straightener. The ends and edges are ground free of burrs from the hot saws, the ends are beveled, and, if required, bolt holes are drilled through the web at the ends. The rails are finally inspected, classified, and loaded for shipment. If ordered by the purchaser, rail will be end hardened or heat-treated after the straightening and beveling. Rails for continuous welding usually will not be drilled.

Via Railroad Engineering Second Ed.

TYCO SHIFTS TO RAIL

Rail intermodal service has replaced all truck transportation for distributing Tyco Toys in Canada.

Previously, Tyco used trucks to move products from plants in New Jersey and Oregon to its distribution center in Toronto. However,



when the toy company consolidated its production at its plant in Beaverton, Ore., it decided to take a new look at how it got its product to market.

After reviewing options, "intermodal became the answer," said Butch Freedhoff, president of Tyco Canada.

We're using it because it's cost-effective. But we also found that rail had improved greatly in time and efficiency over the past four or five years. And so far, our experience has been very good. We're quite thrilled with the service."

Under a logistics package designed by Alliance Shippers Inc. Tyco Toys move in containers over Burlington Northern to Chicago and CN North American to Detroit. From there, the toys are moved to Toronto by truck.

Via Rail News Update

HUNT DEAL RAISES QUESTIONS ABOUT NS-CONRAIL VENTURE

The service alliance announced recently between J.B. Hunt Transport Services Inc. and Norfolk Southern Corp. further twists the strands of commercial relationships in the intermodal business, characterized in recent years by increasingly complicated marketing. The new agreement - linking Hunt with Norfolk Southern in the Chicago-Atlanta-Jacksonville service route - raises questions about how a Hunt-NS deal would affect NS' Triple Crown Services' venture with Conrail, which recently began operating in the Chicago-Atlanta corridor.

"Market size is not defined by Triple Crown," said Jay Hirst, executive

vice president of Alliance Shippers, an intermodal marketing company in Palos Park, IL. "If they have a relatively minor share of the market compared to CSX Intermodal or APL (Land Transport Services), they (Norfolk Southern) will grow share even if there is a little crossover." "There is an issue of cannibalism here," one industry source said. "You can cannibalize your own freight or watch someone else eat your traffic."

Another area where relationships could change is the connection between some intermodal marketers and Norfolk Southern. The terms of the Hunt-NS agreement are key. Some motor carrier-rail agreements treat truckers like an intermodal marketer, charging a specific price for an arm's length transaction, but others have a revenue sharing clause that might incline the railroad to have a closer relationship.

Details of the contract were not released, and Hunt and NS officials did not return phone calls. A Conrail spokesman declined to comment. One industry official who asked that his name not be used said a key issue in the agreement was rate levels. If the rates were below market levels, some intermodal competitors, such as third parties, could be in for trouble, he said. He said the real indication of the agreement's impact probably won't be seen for two or three months.

Some insiders believe rate levels were a key issue in the Hunt negotiations with the two possible entrants into the Southeast, with NS holding out for higher per mile rates than Western carriers pay because of the shorter hauls.

Scope of the contract was not known, but it may approach 100,000 units if NS puts a new train on to serve Hunt. Other motor carriers and intermodal competitors had a low key response to the recent announcement of the new Hunt-NS service beginning Nov. 1,

using 48-foot and 53-foot trailers. The agreement "comes as no surprise to CSXI, and we wish them well with their venture," said Robert Gould, a company spokesman. CSX and NS both had been negotiating with Hunt for shipments in the Chicago-Southeast corridor that fills out Hunt's North American intermodal network.

I don't think it came as a big surprise" said Jeff Brashares, president of Rail-Van and intermodal marketer in Columbus, OH. "Just because they cut a deal with NS doesn't make us nervous. I think we're all good competitors."

*Via Chicago Board of Trade
Transportation Newsletter*

TWO RAILROADS PURCHASE 115 GE LOCOMOTIVES

Separate orders for a total of 115 state-of-the-art General Electric locomotives have been placed by Chicago & North Western Transportation Company and Santa Fe Railway.

C&NW will acquire 65 4,400-horsepower DASH 9-44CW locomotives for delivery beginning almost immediately, while Santa Fe is buying 50 of the new locomotives whose delivery will begin in February.

At C&NW, the new locomotives will be utilized in western coal service.

Santa Fe's vice president for locomotive maintenance, Michael W. Franke, said, "We are aggressively replacing older locomotives with new, fuel-efficient, high-productivity units to meet the increasing demands placed upon our motive power fleet. "Including the latest order, we have added 371 locomotives to our fleet since 1990, valued at more than \$1 million each."

At Santa Fe, General Electric will perform maintenance work on the

locomotives, using Santa Fe employees at the railroad's Kansas City, Kansas facility.

Via Rail News Update

INTERMODAL SWEEPS

Once again, it's November and time for the Intermodal Sweepstakes. First, the last ten years show a 50 percent growth in intermodal. That is compounded annual growth rate of over four percent. Not bad for a period of economic stagflation and an industry that started out with a real doubt about its future.

Yes, the period contained some fits and starts in the intermodal business. Some carriers chased the elusive short haul dream. Big volumes. Yes, but without returns sufficient to commit the capacity in equipment, terminal and roadway. Much of that has gone through corrections, i.e. shucking for more profitable business.

Railroad management has failed themselves for their shortcomings in multiple organizations. They cut prices in futile attempt to increase the business and its profits by loading up the railroads. Over the ten years, massive progress has been made. The need for reasonable crewing for intermodal trains has been pointed out for years. Today, the railroads have largely achieved that goal, not only in intermodal but across the board.

The same holds true for overall improvements in fuel efficiency. Fuel efficiency has improved over 40 percent. The efficiency of intermodal trains has probably improved even more as newer locomotives flow to intermodal trains.

Intermodal has also done yeoman duty to improve the breed. Half-million lift-a-year terminals are now commonplace. Those who have paid attention have also made those terminals incredibly efficient through

the use of a two-for-one tracks, center row parking, computerized gates, well placed chassis racks and efficient work-flow. Those who hewed to the old style built over-engineered Taj Mahals with remote parking, closely spaced tracks and badly developed gates that consume cash by the bushel.

So on to the Sweeps. This year's race is a flat carbon copy of last year. How about a retrospective?

For the first half of the decade, the top three spots were held by Conrail, Santa Fe and CSX (usually in that order). By the end of the decade only one, Santa Fe remained at the top. CSX for those last years has finished in dead last, preferring to concentrate as CSXI on growing the business on other railroads. Conrail has slipped to fourth, but is still within striking distance of a top spot.

The Burlington Northern has moved from bottom to top to middle, reflecting its various volume-profit strategies through the years. NS, that rock-ribbed bastion of railroad conservatives has, perhaps, begun to take intermodalism more seriously. The naming of an integrated leader is a good sign.

There's one thing about this year's race that is exciting. Last year Santa Fe broke the one million originated loads mark. This year, both Santa Fe and SP broke the mark. Next year, the top four carriers have a shot at making that mark. The industry has come a long way.

This year will end with containers at a solid 53 percent (excluding RoadRailers). This is a year of artificially forced trailer loadings. If you doubt this consider the following.

New annual trailer fleet purchases in the good old days were about 15,000 just to keep the fleet even. This year there were 9,000 trailers added to the fleet along with nearly double that in domestic containers.

1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Conrail 671	Santa Fe 627	Conrail 734	Conrail 810	Conrail 825	Conrail 859	BN 937	Santa Fe 925	Santa Fe 1047	Santa Fe 1120
Santa Fe 660	Conrail 626	CSX 634	Santa Fe 719	Santa Fe 805	Santa Fe 855	Conrail 845	SP 842	SP 950	SP 1055
CSX 600	CSX 589	Santa Fe 633	CSX 708	BN 770	BN 830	Santa Fe 837	BN 829	UP 890	UP 961
SP 505	NS 473	BN 591	BN 693	CSX 640	CSX 727	SP 804	UP 828	Conrail 846	Conrail 948
UP 418	UP 471	UP 518	UP 551	SP 600	SP 652	UP 710	Conrail 806	BN 837	BN 850
NS 417	SP 467	SP 491	SP 537	UP 598	UP 625	NS 625	NS 638	NS 684	NS 746
BN 409	BN 453	BN 486	NS 513	NS 550	NS 500	CSX 578	CSX 548	CSX 578	CSX 613
Others 920	Others 894	Others 913	Others 869	Others 912	Others 852	Others 864	Others 827	Others 802	Others 807
Total 4.6M	Total 4.6M	Total 5.0M	Total 5.4M	Total 5.7M	Total 5.9M	Total 6.2M	Total 6.2M	Total 6.6M	Total 7.1M
Change	Change .9%	Change 9.20%	Change 7.00%	Change 7.30%	Change 3.00%	Change 3.80%	Change 0.60%	Change 6.50%	Change

Figures are thousands of originated trailers/containers

Individually by railroad, the container breakout looks like this. The SP is pushed into second place with a 67 percent containerization rate by BN with 68 percent. CSX and UP have 47 percent each, Santa Fe 46 percent and Conrail 42. Norfolk Southern looks like a laggard at 39 percent until one deducts RoadRailers (counted as trailers), which vaults them into third place at 49 percent.

Part via *Progressive Railroading*

AMTRAK PRE-QUALIFIES SIX EQUIPMENT BIDDERS

Six manufacturing firms/consortiums have been pre-qualified by Amtrak for participation in the competitive procurement process for the railroad's plans to acquire a new generation of high-speed passenger trains.

Those pre-qualified include:

ABB Traction, Inc., with Ratheon; General Dynamics; General Electric Transportation Systems; ABB Traction AB; and ABB Henschel.

Bombardier Corp. with General Electric Transportation Systems and GEC Alsthom.

Breda Transportation Inc. with Ansaldo Transport; Union Switch & Signal, General Electric Transportation Systems; and Grumman.

Morrison Knudsen Corp. with General Electric Transportation

Systems and Fiat Ferrovaria.

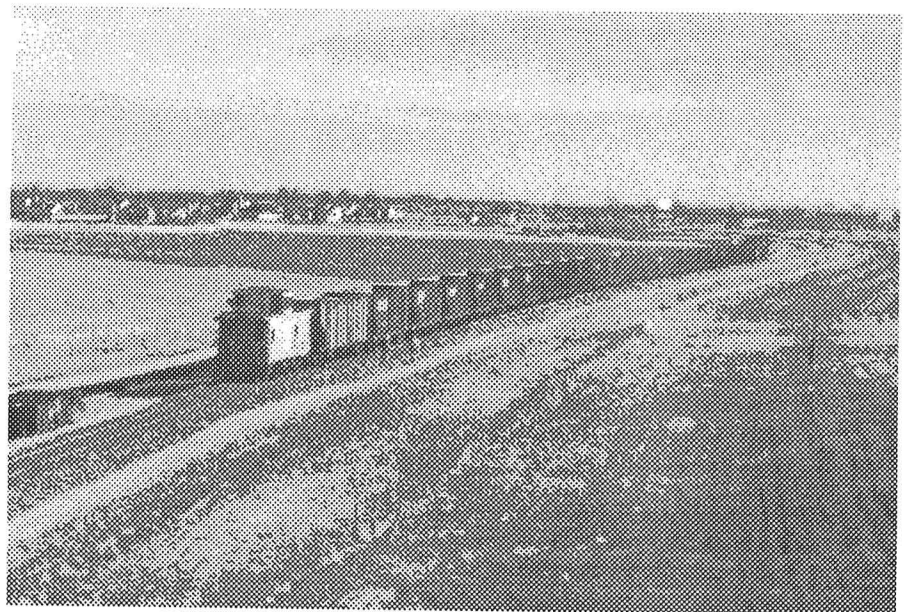
Renfe Talgo of America, Inc.

Siemens Transportation Systems, Inc., with General Motors Corp.'s Electro-Motive Division and AEG Transportation systems Inc.

As part of the pre-qualification process, all firms provided strong assurances of substantial American content. Amtrak has announced plans to acquire 26 integrated high-speed trainsets capable of traveling at speeds up to 150 miles per hour. It also seeks an option to buy up to 25 additional trainsets, which will include both cars and locomotives.

Via *Rail News Update*

A caboose? NS ballast train spreads ballast east of Veterans Parkway on Nov. 20. The caboose is used for the crew as the train is shoved 6 miles to the project.



1994 DUES ARE DUE!

With the October issue of the DANVILLE FLYER we sent the renewal statement for 1994 dues (if you did not get one please let us know). Unless noted on the renewal form, please keep the form for your records and send your check only to the Treasurer, Allen Cooke at the address listed. We will send your membership card in the following issue.

We hope you have enjoyed being a member of the chapter over the past year and look forward to having you onboard during 1994.

