The BN Expediter

Volume 29, Number 1 *January 2021*

FOBR
FRIENDS OF THE
BURLINGTON NORTHERN
RAILROAD

The official publication of *The Friends of the Burlington Northern Railroad*, the historical society focused on the *Burlington Northern Railroad*, the *Burlington Northern Santa Fe Railway*, the *BNSF Railway and the Montana Rail Link.*

Friends of the Burlington Northern Railroad

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www.fobnr.org
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The Friends of the Burlington Northern Railroad (**FOBNR**) was formed to gather, preserve, and share information about the history, current operations, and future development of the Burlington Northern Railroad and its successors. It follows the evolution of the railroad from its inception in 1970 with the merger of the Great Northern, Northern Pacific, Chicago, Burlington, and Quincy, and the Spokane, Portland and Seattle Railroads.

The purpose of the **FOBNR** is educational. We wish to perpetuate the history of the Burlington Northern Railroad, its successors and the Montana Rail Link. We seek to collect and preserve any materials which help establish or illustrate the life, conditions, events, and activities of the railroad. We will disseminate this information through the publication of a newsletter, establishment of a web site, by maintaining an archive, and by conducting an annual convention somewhere along the lines operated by the railroad. We may also publish information in other media and may restore and operate historical railway equipment.

Regular membership is $25.00/year; Sustaining membership is $50.00/year; Junior membership (16 and under) is $10.00/year. The membership year is from January 1 to December 31.

*The **FOBNR** is not supported by, nor affiliated in any way with, the BNSF Railway, its subsidiaries or affiliates.*

The BN Expediter

The BN Expediter is published four times a year and is included with membership in the **Friends of the Burlington Northern Railroad**. Manuscripts, photographs and information are welcome for publication. Articles are compensated at $25/page of text; contributors of photos will receive one free copy if an **FOBNR** member, two if not.

Anything published in *The BN Expediter* (including the classifieds), must be focused on the Burlington Northern Railroad, its successors and the Montana Rail Link. Information and/or pictures that give historical perspective or context are acceptable (e.g., premerger road numbers). The disposition of a locomotive, other piece of equipment or property is also acceptable. Further information is available from the Editor.

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Back Issues of The BN Expediter

The **FOBNR** is now selling digital copies (PDFs) of all older editions of *The BN Expediter* for $5 each. You can also purchase a set of 32 editions (1993-2000, 2001-2008 or 2009-2016) (PDFs in a zip file) for $40.

Cover Photo: To commerate BNSF's 25th Anniversary, ten ES44AC locomotives received predecessor lines logos, numbers 5828, 5869, 5872, 6017, 6022, 6075, 6078, 6111, 6163 and 6199. Peter Ferch caught #6078 when it visited Willmar, Minnesota on October 13, 2020.

Corrections

The roster information for MRL's 45 Series locomotives on page 10 of the October 2020 issue had a few typos:

MRL 308 was built as CRR **3**624, not 8624.

MRL 344 was built as DRGW **53**17, not 3517.

MRL 348 was built as NW 1**7**46, not 1446

In addition, although MRL 352 and 353 were *ordered* as CB&Q 532 and 536, they were *delivered* after the merger and painted and lettered as BN 6493 and 6497. They never appeared in CB&Q paint or numbers.

SD45 #347 was also missing from the roster, although it never received that number, remaining as LTEX 680 and painted in Guilford colors with a N&W high nose until retired. It was built in 8/67, had builder #32722 and lineage: LTEX 680 < ST 680 < ST 1779 < NS 1758 < NW 1758. An interesting sidelight is that it was nicknamed "Surgio" by Livingston mechanical folks because of noise it made going up Bozeman hill, and was well liked because it never seemed to have mechanical issues.

Also, the caption for BN 6599 at the bottom of page 27 of the July 2020 issue says that it had two 4-axle trucks. It actually had just one 4-axle truck, on the rear as can be seen in the photo.

Sustaining Members

On behalf of our members, the **FOBNR** Board of Directors would like to thank our sustaining members for 2021. Their generous contributions have helped us to continue furthering the goals of our organization.

John Adams
Tony Aegerter
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Fredrick Smith
Ronald Soder
Mark Steenwyk
Matthew Steinblock
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Burr Stewart
John Tenerowicz
Gary Van Aken
Aric Van de Vord
Brian VanCamp
Todd VonStup
Richard Walker
William Webb
Jeffrey Weymouth
Robert White
Otto Wick
Richard Wilder
Don Winn
Gary Wlodarczy

2021 FOBNR Convention Vancouver, Washington

We had hoped that our knowledge of the virus and our ability to deal with it safely would have become clear enough by now to say that our 2021 convention was on, but alas we still aren't sure. We are monitoring conditions and, with luck, will soon be able to make a positive decision to hold the convention. If we do, it will be scheduled for June 9-12, 2021, hopefully with tours of the Port of Vancouver and Kalama Export (grain) Terminal, two model train operating sessions, railfanning up the Columbia River Gorge and more tentatively on the agenda. Watch our website, Facebook page, and the April 2021 issue for updates.

2022 All-BN Calendar
Call for Photos

The **Friends of the Burlington Northern Railroad** is soliciting photo contributions for its 2022 all-BN calendar. If your photo is used we'll send you a free calendar.

Submit a high resolution scan of one or more of your favorite BN photos (sorry, no BNSF) to Mark Demaline at `conductor7@aol.com`. Photos of the BN in scenic locales, action photos, structures or unusual equipment are welcome. Photos taken between March 2, 1970 and December 31, 1995 are preferred. **The deadline is May 21st.** Submit a photo to help your society and see your work in print. Have a question? Send Mark an email or give him a call at 330-417-1455.

Board of Directors Election Request for Nominations

The current terms of office of Peter Ferch, Ben Hucker and Dave Poplawski on the **FOBNR** Board of Directors will expire at the annual meeting this summer. In accordance with the bylaws of the **FOBNR** and Board policy, nominations are hereby solicited by March 1, 2021 for candidates for these positions. All positions are for two years.

Any **FOBNR** member can nominate him or herself or be nominated by another person (the nominee will be contacted and must then accept the nomination). All nominees will be asked to write a short autobiography and a statement of why they should be elected.

A list of nominees, their supporting information, and a ballot will be sent along with the April 2021 issue of *The BN Expediter*. Voting will take place by mail.

All details of the election will be handled by **Gary Seymour**. Send nominations, or names, addresses and supporting information to him at:

PO Box 271
West Bend, WI 53095 **email: contact@fobnr.org**

President's Message

WOW! 2020, what a year it was!! "Unprecedented" - OK, let's get that out of the way. Certainly COVID-19 had its way with 2020 and has affected all of us. Despite these challengers the **FOBNR** has had a very successful year. Prayers are sent that everyone stays in good health and that 2021 will start to allow us to return to something approaching normalcy.

More importantly for the **FOBNR**, 2020 is a double anniversary. 50 years ago, Burlington Northern was finally allowed to consolidate the Hill Lines after years of attempts. And 25 years after that BN and AT&SF merged to form BNSF, which has now been in place for as long as the independent BN existed. It is amazing to think that BNSF has now actually outlived the BN! It seems like only yesterday when we, as a **FOBNR** Board, were discussing the issue of continuing to follow the BNSF or stopping at 1995. Personally, I am extremely happy that we decided to continue to follow the BNSF! We can also be impressed that both these mergers, although not without problems, went better than many of the mergers in the late 60's and early 70's as well as the mid-90's. The merged railroad is continuing to be a successful and vibrant railroad in the 21st Century, despite the challenges. We are dedicating most of this issue to that merger and hope you enjoy it.

Our organization has also decided to continue our coverage of Montana Rail Link, since it has been and is so integrally connected to BNSF. We have a new contact person who has offered to continue to supply us with information about MRL, so we hopefully will be able to use his information to continue to bring you more content in the future.

With these efforts the **FOBNR** has actually had a successful year in 2020. For the first time in over 20 years we have over 300 members, one-third of which are sustaining members. This has in turn brought in more excellent content and the funds to enable us to publish 28 and 32 page issues of *The BN Expediter*.

We do have to report that an important member of our team, Mark Demaline, has asked to step back from his role as the Associate Editor of *The BN Expediter* to devote more time to family and other interests. Mark has been a tremendous asset in recent years, helping Dave Poplawski with the editing tasks and spearheading the annual BN calendar. Mark and Dave have become a tremendous team to help maintain and improve the quality and quantity of *The BN Expediter*. Mark has agreed to continue his activity with **FOBNR**, particularly with the annual BN calendar production and reporting on his interest and contacts with MRL. While we will certainly miss Mark's assistance, we wish him well and look forward to continuing our contacts with him in future years.

Along these lines, Dave could certainly use some help with *The BN Expediter*, both in terms of contributions of content (especially modeling articles) and providing some help with editing. In the short term he could particularly use some help with proofreading upcoming issues of *The BN Expediter* before they are published. Please let Dave or me know if you would be interested in providing your help!

We also hope our mail delay problems are in the past, as it seems the October issue was delivered in a timelier fashion, although there still were some surprises. Some west coast members received their copies before Michigan members at the site of printing and delivery to the post office! We are going to endeavor to send out mailings a little earlier to keep on schedule and avoid having to increase dues to pay for first class postage.

Convention planning for the 2021 Convention, postponed from 2020, continues to progress and we are hopeful that the virus will be under control so we get together in Vancouver in June. We hope to have some great tours, our annual banquet speaker and lots of trains to watch in the Pacific northwest.

Finally, you'll find on page 3 of this issue a solicitation for nominations for Board members. Several of us have been on the Board FOREVER, and new blood, with new ideas and plans for the organization would be an asset for the organization. The commitment is to participate in our annual Board meeting at the Convention, hopefully in person, but virtually if necessary, as well as quarterly conference calls. We email each other frequently for the rest of our work, but this is very manageable. Please consider offering your talents to the Board!

I look forward to seeing many of you this summer in Vancouver!

John

Katie Farmer
named President and CEO of BNSF

(excerpt from 9/14/2020 press release)

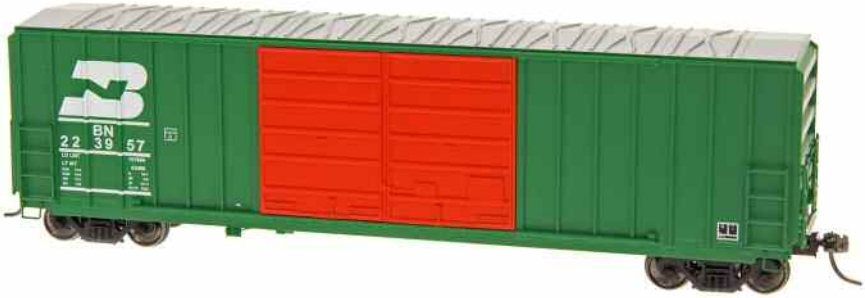
Fort Worth, Texas, September 14, 2020 – BNSF today announced that Executive Vice President Operations, Kathryn M. Farmer, will become President and Chief Executive Officer on Jan. 1, 2021. She will continue her role on and assume leadership of BNSF's Board of Directors. Carl R. Ice, current President and Chief Executive Officer, will retire at the end of 2020 and remain on BNSF's Board of Directors as well.

(The full press release is available from BNSF's web site.)

FOBNR Contact Corner

Question 29.4.1: Intermountain Boxcar Model With Orange Doors **(**via email)

I have been collecting HO scale models of BN equipment since 1969. I recently purchased an Intermountain Railway model of an FMC 5283 double door box. I attached a photo of this car which apparently was numbered in the 223900 series. Can you tell me the significance of the orange doors on these boxcars? I have not been able to find any information as to why these doors were painted orange. D.A.



Answer: To answer your question, I decided to start with an old standby I use for information and pictures:

`railroadpicturearchives.net`.

There I sought out in order:

Railroad>Fallen Flags> BN>Rolling Stock Roster>Boxcar

This produced a list, by number, of the BN boxcar roster. It is many pages long. But I scrolled though the pages until arriving at the location of the numbers that would include your model car's number. The cars in this group all appeared to have an identical AAR type and class number {AAR type A303 and class XP}. I noted that in the upper right corner of this page, I could select BN grouped by AAR Type. Clicking on this brought up all of the various types neatly arranged. I clicked on the A303 entry and that put all of the cars classified as A303 into a single list. There were 25 cars in the group listed.

Of the 25 cars in the list, 9 were in the 223 series. Your model car number is not among those in the list. I suspect that Intermountain arbitrarily decided to give it that number because it falls in between the prototype car numbers of 223953 and 223959. The site has pictures of many, but not all, of the cars in the 223 series. Of the 9 cars listed, 5 have orange doors. The rest have green doors.

The following section is a quote from the description notes contained on that page:

> AAR Class XP - *Boxcar similar in design to "XM", but which is specifically equipped, designed and/or structurally suitable for a specific commodity loading; except boxcars (XF, XM, XMI) dedicated to the transportation of commodities in paragraph A, Rule 97, AAR Interchange Rules, must be designated "XP".*
>
> AAR Type A303 - *Detail Info: Equipped Box Car, Inside length: 49' to 59', Sliding door, opening greater than 11 feet.*

A Google search lasting about ½ hour failed to turn up Rule 97 Paragraph A in AAR materials.

Further examination of the listings showed that not all of the boxcars in the 223 series were classified as AAR Class XP and AAR Type A303.

On the **FOBNR** website, a number of official documents are identified as the sources for the information contained on the listings on the Freight Car pages. I then turned to two of our Board of Directors members who have expert knowledge of many things related to Burlington Northern and who had access to those documents.

Their combined information revealed that:

1. The boxcars in the 223 series were most likely originally leased by Southern Pacific and were either purchased from SP or, more likely, BN purchased the lease when SP did not renew it.

2. Since many of the cars in the series had green doors and not orange, the orange doors were most likely a replacement for damaged doors and were still in primer paint.

3. Therefore, the color of the doors does not have any significance indicating the exact nature of the load.

4. One of our experts believes that the type of door on the Intermountain model is not the correct replacement door, but more research would need to be done to find the manufacturer of the correct door.

So it would appear that your model is a type of boxcar designed to be modified internally to carry a specific load, but we are unable to determine what that load may be. And since the orange door has no particular significance, perhaps Intermountain chose the color orange for the doors because it was "different" and, therefore, a sales incentive.

That being said, let's toss out the unknowns to our readers and see if they can help. Readers:

1. Is anyone able to shed some light on AAR Rule 97, Paragraph A and how it might apply to this type of car?
2. Is anyone able to provide information on the replacement doors on this type of boxcar? Are they correct? If not, which are the correct ones?

Gary Seymour, **FOBNR** Website Contact

FOBNR Freight Cars

On Paul Brennecke's N-Scale Grand Road

This N-Scale model railroad represents about two miles of contemporary mountain mainline on the western slope of Colorado. It is a proto-freelance railroad located in an eight by thirteen-foot room in the basement. Trains heading east are bound for Denver and trains heading west are bound for Utah, California, Oregon and Washington.

The small layout room and mountainous scenery dictates a railfan concept. Under the visible scenery are seven hidden staging tracks which hold six freight trains and Amtrak #6. The longest train is a 55-car unit coal train with 2 x 2 x 1 DPU power. The shortest is a 30-car mixed freight which is featured in this article.

The layout was constructed using "old school" techniques of plaster hardshell over cardboard strips. Subsequently, the layout was covered with rock castings colored by staining with various earth colored dyes, real dirt and ground foam grasses and bushes were used for ground cover. Trees were fabricated from tooth picks and a scenery product called foliage. There are about 3,000 on the layout.

Engines are controlled by NCE throttles, switches are controlled by a diode matrix system which powers solenoid motors mounted under the layout. A homemade infrared detection system keeps track of the location of trains in the hidden staging. Engines are detailed with .008" dia. grab irons, .010" dia. handrails and are weathered to various degrees. All rolling stock is weathered. Almost all structures are scratch built.

Following are photos of **FOBNR** cars 1994 and 2020 taken by railfan Paul Brennecke on the Grand Road.

If you are a modeler and interested in having your own **FOBNR** covered hopper on your layout, we are selling decal sets for O, HO and N scale cars through our company store. A version of the decal with all white (no black) lettering is also available. Just go to the company store webpage and put in your order. Once you've completed your car, send us a picture of it in a scenic location on your layout and we'll put it on our website.

www.fobnr.org/decals

The Portland to Denver Hauler (PODNHL) has just left the town of Terror Creek and will enter tunnel #W7 as it climbs the western slope of the Grand Road mainline.

Amtrak #6 briefly stops at the Terror Creek depot to load and unload passengers while the Portland to Denver Hauler (PODNH) enters tunnel 8W.

Not far above the Terror Creek depot is a sweeping curve which is a great place to photograph trains. Here we catch the Portland to Denver Hauler (PODNH) climbing toward the Continental Divide. At the Divide, the train will pass thru the Leckenby Tunnel (proto-freelanced tunnel named after Paul's Grandfather, Charles Leckenby, who was secretary of the Moffat Tunnel Commission when it was built). Once through the tunnel, the PODNH will make a descending run down the Front Range into the Denver North Yard.

BN + AT&SF = BNSF
25 Years and Counting

by Dave Poplawski

As the press release below says, on June 30, 1994, BN and Santa Fe started the official process of merging the two companies, and railroads, into a single entity. It would become the largest railroad in the United States, at least temporarily. And if anybody thought the process would be simple and quick, they soon found out they were grossly mistaken.

By the early 1990s consolidations and bankruptcies had reduced the number of Class 1 railroads drastically. In the east, Conrail, CSX and NS were well established. In the west, the Rock Island and Milwaukee were gone, and the UP had absorbed the MoPac and Western Pacific, and was on the verge of buying up the C&NW. The Rio Grande and SP were under the same corporate umbrella, although operated independently. This left the Santa Fe as the little guy on the block. In his book *Riding the Rails*, Rob Krebs, CEO of Santa Fe at the time, says: "I had realized for some time that no matter how great the Santa Fe Railway became, it

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FOR IMMEDIATE RELEASE

BURLINGTON NORTHERN AND SANTA FE AGREE TO MERGE

FORT WORTH, TEXAS and SCHAUMBURG, ILLINOIS, June 30, 1994 -- Burlington Northern Inc. (BN) and Santa Fe Pacific Corporation (Santa Fe) jointly announced today that they have signed a definitive agreement providing for the merger of the two companies, subject to receiving approval from the Interstate Commerce Commission (ICC). The combination will create a rail network covering the midwestern and western United States and provide shippers with single-line service connecting all principal West Coast ports with major midwestern and western markets and with ports and markets in the Southeast.

had to merge to create a larger network or become marginalized. In the West, you had four large railroads: Santa Fe, Union Pacific, Southern Pacific, and (biggest of all) Burlington Northern. It was an unstable environment, because all four railroads understood that if you didn't do a merger, two of your competitors in the region would, leaving you with just one choice–railroad number four. The other incentive to act was just as important. Railroading is a network business, and the bigger the network, the better you can serve the needs of your customers and attract new business."

At Burlington Northern, CEO Gerald Grinstein had realized the same thing, and in 1988 started talks with D&RGW's Phil Anschutz about a joint venture to buy the Southern Pacific. The talks never came to much as Anschutz was secretly planning to buy the SP by himself,. With a merger of the BN with UP essentially out of the question—the ICC would never approve it, that left the Santa Fe as the only possible alternative.

In early 1993 Rob Krebs went to Fort Worth to talk with Grinstein about a possible merger. Krebs reported that Grinstein seemed "ambivalent." Talks proceeded between the two companies for months, but it wasn't clear that the details could be worked out.

At the same time, the BN board of directors was putting pressure on Grinstein to figure out who his successor would be. Grinstein was 61 at the time, and the board was convinced that whoever the new CEO was going to be, it would definitely not be someone currently at BN. Hence a new CEO would have to come from the outside.

With a BN / Santa Fe merger, Krebs would be the obvious choice to take over when Grinstein retired. But as the merger talks dragged on and it wasn't obvious that a merger agreement could be worked out, Grinstein contacted Richard Davidson, then president of the Union Pacific, to see if he would be interested in being president of the BN and eventually CEO when Grinstein retired. Lawrence

Santa Fe shareholders will receive 0.27 of a share of Burlington Northern common stock for each Santa Fe share. Separately, Santa Fe announced today that it will distribute to its shareholders on September 30, 1994, the remaining stock which it owns in Santa Fe Gold Corp. This dividend will be paid prior to the merger with BN and is not dependent on the merger. Both transactions are expected to be tax-free to shareholders.

Upon completion of the merger, Burlington Northern will change its name to Burlington Northern Santa Fe Corporation and the railroads will be called The Burlington Northern and Santa Fe Railway Company. Gerald Grinstein, Burlington Northern's chairman and chief executive officer, will be chairman of the merged company. Robert D. Krebs, chairman, president and chief executive officer of Santa Fe, will be president and chief executive officer of the new company.

"The combination of Burlington Northern and Santa Fe is a predominately end-to-end merger that will benefit shippers and the public," Mr. Grinstein said. "There is very little overlap between our two rail systems."

"The merged BN/Santa Fe network will provide single-line service across the key transcontinental corridor from Central and Southern California to the Southeastern gateways of Memphis and Birmingham. It will provide Midwestern grain shippers with new single-line access to the West Coast and Gulf ports, and it will enhance shipping options to Canadian and Mexican gateways," he said.

Mr. Grinstein said that shippers prefer single-line service because it is more efficient, gives them one point of contact, and eliminates the costs and delays associated with interchanging traffic from one carrier to another. Enhanced single-line service also will open new markets for shippers.

"This merger will create a strong, new rail carrier with a diversified traffic base and excellent financial prospects. For example, Santa Fe's strength in intermodal traffic will complement BN's strength in coal and grain," said Mr. Krebs. "This will benefit employees, customers, shareholders and the communities where both railroads operate."

"The combination of BN and Santa Fe will help U.S. industries compete more effectively in world markets by linking the heartland more closely with the West Coast and Gulf Coast ports, thereby providing better access to Pacific Rim nations and other trading partners," Mr. Krebs said.

The merger has been approved by the boards of directors of both companies. It is subject to approval by the shareholders of both companies at special meetings to be scheduled as soon as possible. The companies will file their merger application with the ICC later this year and ask the ICC to rule on the merger on an expedited basis. While the ICC is reviewing the merger, BN and Santa Fe will operate as independent companies, each headquartered in its current city and operating under the direction of its current board and management.

"We expect the merger to result in substantial cost savings through operational improvements, increased traffic densities, reduced administrative costs and elimination of duplicative functions," said Mr. Krebs.

Burlington Northern is being advised by Lazard Freres & Co., which has rendered a fairness opinion to BN's Board of Directors, and Davis Polk & Wardwell. Santa Fe's advisors are Goldman, Sachs & Co., which has rendered a fairness opinion to Santa Fe's Board of Directors, and Mayer Brown & Platt.

Burlington Northern Inc. (NYSE: BNI) is the parent company of Burlington Northern Railroad, one of the world's leading providers of transportation and information services, and operator of the longest rail system in North America. It operates through 25 states and two Canadian provinces.

Santa Fe Pacific Corporation (NYSE: SFX) is the parent company of the Atchison, Topeka and Santa Fe Railroad Company, which operates in 12 states and offers service to Mexico. In addition to owning Santa Fe Pacific Gold, which will be spun off, Santa Fe also owns a 44 percent interest in Santa Fe Pacific Pipeline Partners, L.P.

Kaufman wrote in his book *Leaders Count: The Story of BNSF Railway* that "At least an informal offer was made to Davidson, and when he informed the UP board that he planned to leave, the board instructed Lewis [ed: Drew Lewis, then UP chief executive] to name Davidson president of the [UP] holding company and to move him to headquarters in Bethlehem, clearly making him Lewis's successor-in-waiting." This closed the door to Davidson coming over to BN.

Merger talks between BN and Santa Fe eventually led to an agreement, and on June 30, 1994 BN and Santa Fe jointly announced their intent to merge. The press release on the previous page gives the details, including an answer to who Grinstein's successor would be.

Merger planning was progressing when on Wednesday, October 5, 1994, a gigantic wrench was thrown into the merger machinery. Drew Lewis called Krebs to tell him that the UP wanted to acquire the Santa Fe. Thus was set off a bidding war with billion dollar proposals and counter proposals, legal maneuvering, and public relations wars that had so muddied the merger process that it was not at all clear who Santa Fe will combine with (if anyone), and when. For a detailed recap of the battle, check out Kaufman's *Leaders Count* book mentioned above, and also the October 1994, and January, April, July and October 1995 issues of *The BN Expediter*.

The bidding war between BN and UP for the Santa Fe ended abruptly on January 31, 1995 when Union Pacific, in a short statement from Drew Lewis, withdrew its offer to buy Santa Fe. Thus ended an almost four month battle, one that would cost BN about $4 billion to acquire the Santa Fe versus $2.7 billion before the UP started the bidding war.

Shortly thereafter shareholders of both BN and Santa Fe met to vote on the final merger agreement. On February 7, at separate meetings, approximately 78% of BN shareholders and 70% of Santa Fe shareholders voted in favor of the agreement.

The final terms of the merger agreement were as follows: Santa Fe would pay $20 per share to acquire 38 million shares of its own stock. BN would also paid $20 per share to acquire another 25 million shares of Santa Fe stock. Finally, at the time of the merger each share of Santa Fe stock would be converted into the right to receive approximately 0.40 shares of BN stock.

The way thus was cleared for the ICC to continue its review of the merger. The ICC, which put the merger proceedings on a "fast track", set August 23, 1995 as the date for a decision to be rendered. Still to be resolved were objections by other railroads, shippers, etc. to the proposed merger.

On March 29th, UP was granted tentative trackage rights on approximately 100 miles of the Santa Fe between Abilene, Kansas and Superior, Nebraska. The rights would take effect when the merger was completed. In accepting these trackage rights, UP agreed that it would have no other opposition to the merger.

Southern Pacific was also concerned about the merger and declared that it would actively oppose it. To address those concerns, BNSF gave SP trackage rights between Pueblo, Colorado and Fort Worth, Texas, Kansas City and Chicago, and Kansas City and Fort Worth. In return, SP granted BNSF trackage rights between El Paso, Texas and Topeka, Kansas and haulage rights between Caldwell, Texas and Eagle Pass, Texas (on the border with Mexico). With this deal SP agreed to no longer oppose the merger.

To get Kansas City Southern to withdraw its objections to the merger, BNSF worked out a haulage agreement that would give KCS access to East St. Louis, Illinois, St. Joseph, Missouri and Memphis, Tennessee using BNSF trains and trackage. BNSF would retain Santa Fe's access to New Orleans but also gained the ability to market and price carload freight to connections with NS and CSX there too.

Other less significant objections and concerns were resolved and after a verbal approval by the ICC on July 20 and official written approval on August 23, Burlington Northern Incorporated and Santa Fe Pacific Corporation officially merged to form the Burlington Northern Santa Fe Corporation on September 22, 1995. While the corporate entities were now one, the actual merger of railroad operations did not occur until December 31st. However, dispatchers in Fort Worth began responding with "BNSF" instead of just "BN" well before December, so a few operational changes began early.

In consummating the merger, Gerald Grinstein became chairman of the new company and Robert Krebs became president and CEO. Nine senior vice presidents were appointed, all reporting to Krebs. They are: John Anderson, coal business unit; Douglas Babb, chief of staff; James Dagnon, employee relations; Charles Field, chief information officer; Steven Marlier, consumer business unit; Donald McInnes, chief operations officer; Jeffrey Moreland, law and general counsel; Denis Springer, chief financial officer; Gregory Swienton, industrial business unit.

This structure changed quickly when Grinstein somewhat surprisingly resigned on December 31, 1995. He was temporarily replaced by another member of the BN board of directors, Danny Davidson. Krebs eventually became chairman later in 1996.

BNSF also ended months of speculation on the location of their headquarters by announcing that the combined company would be based in Fort Worth, Texas, and that all operations and marketing would be based at the recently opened James J. Hill Center in north Fort Worth.

To no ones surprise, Union Pacific announced on August 3, 1995 that it was going to purchase Southern Pacific for $5.4 billion, to create the nation's largest railroad. In short order UP/SP negotiated a package of line sales and trackage rights with BNSF in return for BNSF's agreement not to oppose the UP/SP acquisition before the ICC. The following summarizes the agreement:

-- BNSF will operate over SP and UP lines between Denver, CO. and Oakland, California. BNSF will serve Provo, Geneva, Salt Lake City and Ogden, Utah; Reno, Nevada., and other intermediate points, operating over UP's "Feather River" route and SP's Donner Pass line.

-- BNSF will purchase UP's "Inside Gateway" route in Northern California, between Keddie and Bieber, linking BNSF's Pacific Northwest lines with its California network.

-- BNSF will serve the Oakland - San Jose Bay area via UP trackage rights.

-- BNSF will operate over UP and SP between Riverside and Ontario, California, with access to various Southern California industries,

-- BNSF will gain access to the Port of Oakland, California over SP.

-- UP/SP will have trackage rights in Oregon over BNSF to connect eastern Oregon with the SP's I-5 Corridor linking the Pacific Coast and overhead trackage rights over BNSF's Mojave to Barstow, California line.

-- BNSF will enter into a proportional rate agreement with UP/SP over the Portland Gateway which will allow UP/SP to compete with BNSF for business in an area extending from Montana west and from Canada to the Columbia River and to an area extending from Oregon to West Texas.

-- BNSF will operate over UP between Houston and Brownsville, Texas, serving the Texas Gulf Coast and access to Mexico at Brownsville and Laredo through the Tex-Mex.

-- BNSF will gain a through route to New Orleans by a trackage rights grant on SP's line between Houston and Iowa Jet., Louisiana., near Lake Charles. The remaining SP line east to Avondale, near New Orleans from Iowa Jct., including terminal facilities, will be sold to BNSF, with UP retaining trackage rights.

-- BNSF will gain access to petrochemical plants at Mont Belvieu, Baytown, Amelia and Orange, Texas.

-- BNSF will operate over UP and SP to San Antonio and Eagle Pass, Texas.

-- BNSF will operate over various UP and SP routes in Texas, including Taylor to Round Rock, Waco-Taylor-Smithville, and El Paso-Sierra Blanca.

-- UP will sell its line between Dallas and Waxahachie, Texas to BNSF, but will retain exclusive rights to serve customers on that line.

-- BNSF will operate over SP between Houston and Fair Oaks, Arkansas., and over UP between Fair Oaks and Memphis, Tennessee., and will gain access to Arkansas paper mills."

The UP/SP merger was consummated on July 3, 1996, and with it BNSF become the owner of, or had trackage rights on, another 4000 miles of railroad that had to be integrated into its system. To its great credit, BNSF was able to manage the BN/SF merger and the acquisition of the new trackage with minimal disruption to service and, most importantly, revenues. Thus continued the successful merger activities that started in 1970 with the formation of BN, the acquisition of the Frisco in 1980, the BNSF merger in 1995, and the acquisition of new trackage and trackage rights resulting from the UP/SP merger in 1996. This stands in stark contrast to several other rail mergers in that time period that didn't go quite as smoothly.

BNSF got down to business quickly in 1996. Major projects included adding second and in some cases third main lines, and extending sidings along all three major corridors across the system, adding CTC to some previous TWC lines, double tracking the entire Orin line serving the coal fields in Wyoming, improvements in several yards and intermodal facilities, ordering and taking delivery of over 100 new C44-9W locomotives in BNSF's new "pumpkin" paint scheme, and ordering and taking delivery of over 300 new coal gondolas and 90 taconite cars with the BNSF logo and BNSF reporting marks.

A significant accomplishment was the construction of the Cameron Connection near Galesburg, Illinois, giving trains the ability to cross between the Santa Fe transcon and one of BN's main lines into the Galesburg yard. This allowed BNSF to move a lot of slower freight trains to the ex-BN line through Mendota, Illinois so that they wouldn't interfere with the faster and "hotter" intermodals on the ex-Santa Fe transcon toward Chicago, along with giving easy access to the Galesburg yard for freight coming east and going west on the transcon.

Another significant event was the re-opening of Stampede pass in Washington. This gave BNSF a third route into the Seattle/Tacoma port area and relieved congestion on the Stevens Pass and Columbia River Gorge lines.

On August 1, BNSF issued its first combined employee timetables, combining BN's loose-leaf format with Santa Fe's track diagrams. Later that month BNSF's adopted Santa Fe's alphabetic train symbol system, but it wasn't universally adopted until BNSF merged their computer systems the following year.

Consolidation activities included closing three locomotive maintenance facilities, moving their work to BNSF's eleven other shops, and selling over 2000 miles of low traffic density branch lines to six shortline operators.

The book *Burlington Northern and Santa Fe Railway 1996: Historical Profile and Motive Power Roster*, by Robert C. Del Grosso and Patrick C Dorin is an excellent and highly detailed account of BNSF's first year of operation and is highly recommended for those that want to dig deeper.

The First BNSF Locomotives

When BN merged with the Frisco in 1980, no change to the BN locomotive paint scheme was planned or ever carried out. Frisco units were first stenciled with BN, then eventually painted into BN's Cascade green, so one might have expected the same fate for Santa Fe's power. But with Santa Fe's Rob Krebs as CEO and running the show on day one, this didn't seem so likely. It wasn't. But it wasn't the reverse, either, with all BN's power becoming warbonnets.

But first, BN SD70MAC 9647 showed up in August of 1995 in what was called a "Celebration" paint scheme (and quickly dubbed the "Vomit Bonnet" by adoring fans). It was never intended to be the final answer to BNSF's company-wide paint scheme.

BNSF was in no particular rush to repaint, or for that matter, even renumber its fleet of BN and Santa Fe units, so even to this day, 25 years later, you can still find locomotives in BN's Cascade green and Santa Fe's blue-yellow and red-silver. However, new units from orders made before the merger would be arriving on the property soon, and the question was, what they would look like?

As reported by Robert Del Grosso and Patrick Dorin in their book *Burlington Northern and Santa Fe Railway 1996 - An Historical Profile and Motive Power Roster*, BNSF took a rather unusual approach, at least initially. Since the railroad was divided into three major operating regions, why not have three different paint schemes.

The southern region, consisting of mostly ex-Santa Fe lines, would retain the red and silver warbonnet paint scheme for new units as ordered, the only change being the large "Santa Fe" on the long hood replaced by "BNSF". With pre-merger orders for SD70MACs in the Executive green/cream scheme coming soon, the central region, consisting of mostly of lines with a predominance of coal movements using those units, would have the large unit number on the long hood replaced with "BNSF".

But what about the northern region? Since all the units on order pre-merger were coming in warbonnet and Executive colors, there was time to come up with a whole new paint scheme to represent the region that would then be applied to BNSF first locomotive order for C44-9Ws.

In May of 1996, SD60M 9297 left the paint shop in a proposed scheme (with slight variations in the red stripes on the left versus the right sides) and then toured the system. A toll free number was given to employees that allowed them to vote on which side they liked best, including a "neither" option. The engineer's side (solid red stripe) won, and that (slightly modified) became BNSF's northern region scheme.

In the mean time, many Santa Fe locomotives that were getting major overhauls during 1996 were having the large "Santa Fe" on their side replaced with "BNSF" while still retaining their red and silver warbonnet paint scheme. This included several GP60s, B40-8Ws and C40-8Ws.

Finally BNSF put in their first order for C44-9Ws in the new northern region scheme. As they started showing up, the color scheme became quite popular (at least with management) and the whole idea of separate paint schemes for the three different regions fell by the wayside after the last of the pre-merger orders for Executive and warbonnet painted units were completed.

The new paint scheme eventually became known as Heritage I. It was eventually was replaced by the Heritage II scheme, and then slightly modified Heritage III scheme replacing "BNSF" with the "swoosh".

The Celebration SD70MAC in Rozet, Wyoming on September 2, 2000. It was the only locomotive to have the full name, "Burlington Northern Santa Fe" spelled out on the long hood. Photo by Keith Ardinger.

The two sides of the experimental scheme in Wenatchee, Washington on its first run out of VMV's paint shop in May 28, 1996 (left) and in San Bernardino in June 9, 1996 (above). Engineer's side—solid red stripes. Conductor's side—two narrow red stripes. Left photo by Keith Ardinger, above photo by Richard Barnes, Jr from the Keith Ardinger collection.

Several Santa Fe GP60's were altered when they received major overhauls to replace the large "Santa Fe" on the side of the unit with "BNSF". That was supposed to be the only change made, but in the case of #101 the "Santa Fe" on the nose also got replaced with "BNSF". Ah, the best laid plans... Left photo in Ft. Collins, Colorado, by Ed Fulcomer on December 14, 2009; photo above in Topeka, Kansas in June 2000 by John Luckfield, both from the Keith Ardinger collection.

About 65 SD70MACs from the last BN order for these units came with "BNSF" on the long hood and the locomotive's number under the cab window replacing the BN logo. Here's 9752 at Donkey Creek, Wyoming on September of 2000. Photo by Keith Ardinger.

Above are two examples of existing Santa Fe units undergoing major overhauls and getting "BNSF" on the side of the long hood. It would seem that there was some difficulty getting the exact height of the letters consistent. B40-8W 519 in Livingston Montana on July 4, 1996. C40-8W 812 in Tacoma, Washington on February 22, 1997. Top photo by Larry Zeutschel, bottom photo by Ken Ardinger, from the Keith Ardinger collection.

SD75M's from a pre-merger Santa Fe order were rolling in during 1996, otherwise indistinguishable from pre-1996 units except for "BNSF" on the long hood. Ron Diczhazy photographed the 8252 in Riverbank, California on June 9, 2000. The photo is from the Keith Ardinger collection.

BNSF 966 was one of the first locomotives delivered in the new BNSF "northern lines" paint scheme. It is close to the experimental scheme shown on page 17, but the orange is lighter and brighter and the red stripe is yellow, as is the lettering on the nose emblem. The unit was in Vancouver, Washington on August 20, 1996, soon after being delivered. Photo by Sheldon Perry, from the Keith Ardinger collection.

The first non-wide cab unit in the new BNSF paint scheme was GP38-2 2099. Painted by Mid-America Car, it was released to BNSF on September 5th, 1996. This became the paint scheme for all future repaints of standard cab units. Here's the unit in Portland, Oregon on May 17, 1997. Photo by Keith Ardinger.

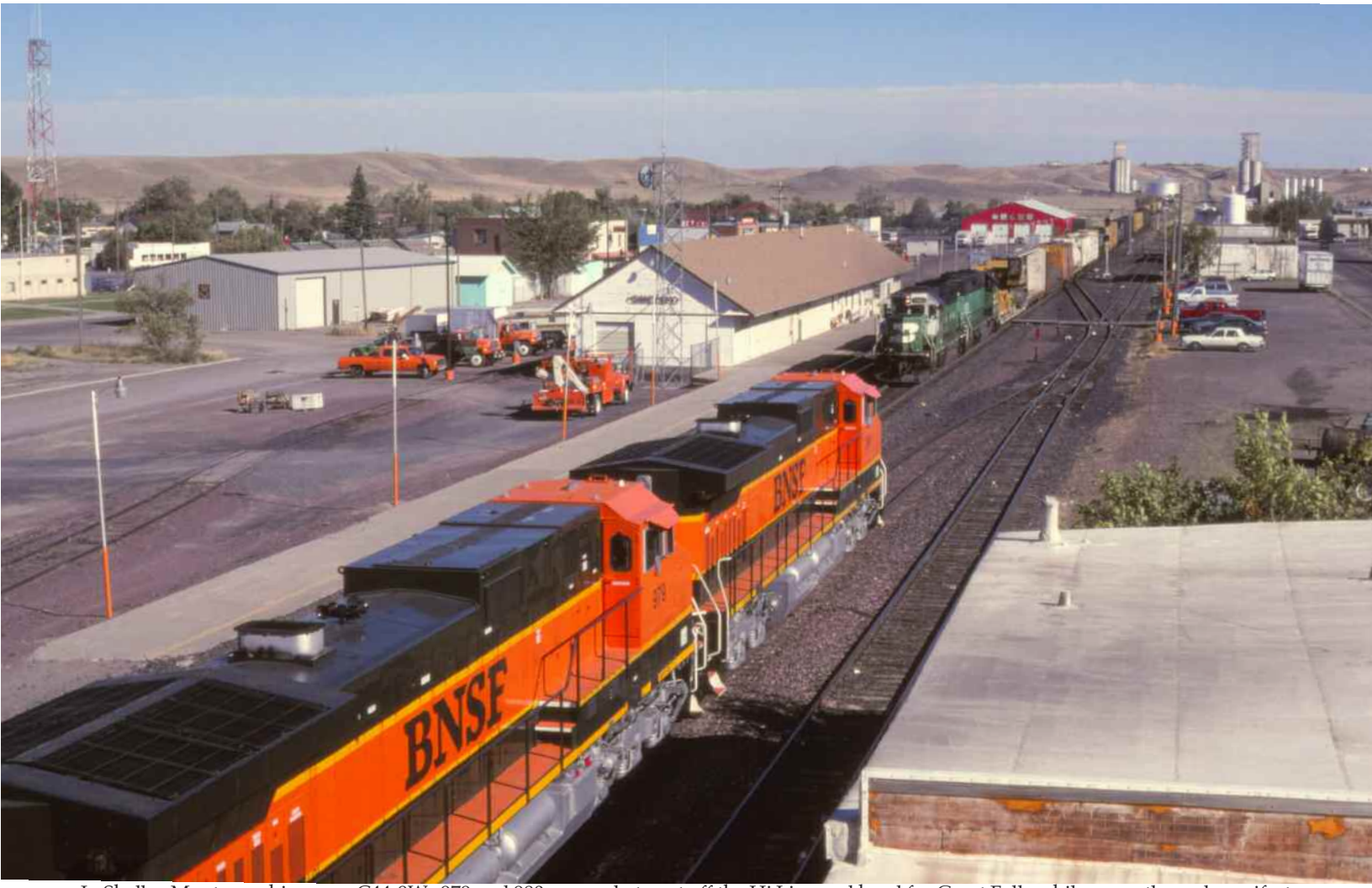
It would take a while, but eventually the Heritage I scheme gave way to the Heritage II scheme in 1997, which in turn gave way to the Heritage III in 2005. BNSF 4050 in H-II is in Columbus, Montana on October 6, 2015. BNSF 9218 in H-III is in Cleveland, Ohio on September 8, 2008. Both photos by Mark Demaline.

An interesting lashup, with two SD40-2s in BNSF Heritage I paint scheme, which is applied to all repainted non-wide cab units, and two of three of BN's SD40-2Bs, leads a freight west at Ancona, Illinois on July 7, 2002. Photo by Mark Demaline.

A little of everything in the Pacific Northwest. BN, Santa Fe, and BNSF's experimental scheme locomotives lead an eastbound out of the Columbia River valley at Trinidad, Washington, heading for Spokane on April 28, 1996. Photo by Keith Ardinger.

Empty coal train with BN and Santa Fe power heads west at Rozet, Wyoming, heading to the Orin line and the mines for another load on June 25, 1996. Santa Fe power was not unusual on coal trains even before the merger as many ran over the Santa Fe, especially in Texas. Photo by Ed Austin.

BNSF began experimenting with distributed power units (DPUs) almost from day one. BNSF SD75M's 8254 and 8264 were equiped with the necessary electronics, and on October 14, 1996 they were pulling and shoving this westbound grain train at Dunkirk, Montana. BNSF must have been satisfied with the results, as all new C44-9Ws came DPU equiped. Both photos by Larry Zeutschel.



In Shelby, Montana, shiny new C44-9Ws 979 and 980 are ready to get off the Hi Line and head for Great Falls while an eastbound manifest with old BN power passes by the Shelby depot. Photo on August 31, 1996 by Larry Zeutschel.

A colorful lashup in Sealy, Texas on September 23, 1998. Photo by Mark Demaline.

Another example of BNSF having difficulty getting the size of the "BNSF" lettering to be consistent. Here C44-9W 4701 and B30-8W 566 lead a grain train through Pasco, Washington on September 4, 1998. Note also that the nose on 4701 says "BNSF" while the nose on the 566 says "Santa Fe". Photo by Larry Zeutschel.

Another mixed lashup on BNSF's Northtown to Pascoe daily freight has the Sweetgrass Hills (small bump on the right horizon) in the rear view mirror and Marias Pass coming up as it passes through Browning, Montana. Photo on October 9, 1999 by Mark Demaline.

Where BN & Santa Fe Met:

1995 and 2020

The merger was pitched as end-to-end, which was mostly true. However, the two railroads had roughly parallel lines between Chicago and Kansas City. The two railroads also shared the trackage in Colorado known as the Joint Line between Denver and Pueblo. There were many other places where BN tracks either connected with or crossed the Santa Fe (some at grade, some over-and-under). Below is a summary.

Thanks to Thomas Jenner, Mark Hall, Kent Hannah, Richard Kistler, Harvey Koehn, Keel Middleton, Trent Oler, Bob Roth and Mark Steenwyk for helping with this article.

Chicago, Illinois

1995: Technically BN and Santa Fe tracks did not connect in Chicago when the merger occurred, but traffic between them was handled by the Belt Railway Company of Chicago (BRC), which was jointly owned by BN, Santa Fe and all the other major rail lines coming into town.

2020: The BRC still handles traffic for BNSF between its ex-BN and ex-SF main lines and yards in the greater Chicago area, along with the IHB, B&OCT, and EJ&E. In addition, a new connector line was completed in 2019 parallel to the B&OCT between Western Avenue on the ex-BN and ex-Santa Fe trackage just east of Corwith Yard.

Galesburg, Illinois

1995: Santa Fe's transcontinental main line crossed under BN's Chicago-Galesburg line just north of downtown and connected with BN's Galesburg yard via industrial trackage just west of downtown. BN served most of the industries in the area, and exchanged cars with the Santa Fe via the small GI (Galesburg Interchange) yard that paralleled the Santa Fe main line. The Santa Fe main again crossed over BN's Galesburg to Lincoln line at the tiny "town" of Cameron, just a few miles west of Galesburg.

2020: The downtown switching and transfer work continues today, but since 1996 complete trains have been connecting in either direction between the ex-BN and ex-Santa Fe main lines via the Cameron Connector, located just east of "downtown" Cameron.

Fort Madison, Iowa

1995: BN's Burlington to St. Louis, Missouri line and Santa Fe's transcon ran adjacent through downtown. A connection a mile or so west of town was used to interchange cars between the two railroads using a small transfer yard on the BN. BN's main crossed under the Santa Fe main a few miles west of town.

2020: The connection is still used to exchange a small number of cars, usually by a local that comes north from Keokuk.

Superior, Nebraska

1995: Santa Fe's line from Neva, Kansas (near Emporia) to Superior connected to BN's southern Nebraska line in a wye. Mostly grain traffic moved off the BN south onto the Santa Fe toward Gulf of Mexico ports due to a joint grain rate negotiated in 1968 between the Santa Fe and the CB&Q, although there was a small amount of car interchange at Superior too.

2020: BN's southern Nebraska line is mostly gone, leaving a single line consisting of the ex-Santa Fe line from Neva, a short remnant of the southern line from Superior to Lester Jct, and the ex-BN line from there up to Hastings, Nebraska where it joins BNSF's Lincoln-Denver main line. There is still a lot of grain traffic moving south to the gulf..

Bucklin, Missouri

1995: The double-tracked Santa Fe's transcon crossed over the BN's Galesburg to Kansas City line at the small town of Bucklin. A single track connected the north main of the transcon with the single BN main line, but it was rarely used prior to the merger.

2020: Since the merger, the connection is used frequently to detour trains between Bucklin and Kansas City over the Brookfield Sub when congestion, trackwork or derailments occur on the Marceline Sub west of here.

Kansas City, Missouri

1995: Technically the BN and Santa Fe tracks did not connect in Kansas City. However, the Kansas City Terminal Railway (KCT) , jointly owned by the BN, Santa Fe and other major railroad companys in the area, was used to connect the BN and Santa Fe. BN and Santa Fe trains routinely ran between BN's Murray Yard and Santa Fe's Argentine Yard, including yard transfers and even a Santa Fe local that went as far as St. Joseph, Missouri on the BN line. BN's north-south route through KC crossed Santa Fe's transcon at grade on KCT trackage at a location called BN Jct.

2020: Most yard operations have been moved to Argentine from Murray. Congestion at BN Jct was also reduced when a flyover was constructed by the KCT in 2004 that allowed east-west trains on the ex-Santa Fe route to pass over the ex-BN north-south route.

Olathe, Kansas

1995: A 3/4 mile connection track between the Santa Fe's transcon and BN's ex-Frisco line to Fort Scott was very sel-

dom used prior to the merger.

2020: After the merger the BNSF rebuilt the connection with heavy rail and signals. Manifest trains to Tulsa and Memphis, and a vehicle train to Birmingham now use it daily. The line is also occasionally used as a detour when the ex-BN line into KC is blocked or congested.

Augusta, Kansas

1995: BN's line between Joplin, Missouri and Wichita, Kansas crossed the Santa Fe transcon at grade, and there was a connection track that at one time was used to exchange coke cars between the Santa Fe and the refinery in town served by BN. The refinery closed in 1983, and the connection was rarely used after that.

2020: The line through Augusta between Fredonia and Wichita, along with the connection, was abandoned and rails removed shortly after the merger.

Wichita, Kansas

1995: BN came into town from the east, ran north parallel to Santa Fe's Newton-Arkansas City, Kansas line to its 29th Street yard, and then north for seven miles where it crossed the Santa Fe line at grade in Valley Center, but with no connection. There were connections near downtown and also near the 29th Street yard. The Wichita Terminal Association, a switching line owned jointly by BN, Santa Fe and Missouri Pacific managed all switching of local industries (mostly grain elevators) on the north end of town. A small amount of traffic was interchanged between the BN and Santa Fe using the connection near 29th Street.

2020: BN abandoned their line into Wichita from the east soon after the merger, so all traffic is now on the ex-Santa Fe line. BNSF now has half ownership in the Wichita Terminal Association, Union Pacific the other half, and it is still used to service BNSF customers in town.

Avard, Oklahoma

1995: BN's line from Tulsa ended here with a connection to the westbound Santa Fe transcon. Several trains a day would come off or get on to the transcon, including a couple of hot intermodals. BN also ran a train between Avard to Waynoka, Kansas on the Santa Fe (about 10 miles) where it would exchange cars. The BN line was single track, dark territory except for a few miles of CTC around Perry, Oklahoma, which limited the number of trains it could handle.

2020: The line was converted to CTC in phases starting in 2012 and ending the next year. Today the connection has 20 or more trains a day, from hot intermodals between western locations and eastern cities like Atlanta and Memphis, as well as merchandise trains to and from Tulsa's Cherokee Yard.

Enid, Oklahoma

1995: Santa Fe's line between Guthrie, Oklahoma and Kiowa, Kansas crossed BN's line between Tulsa and Avard at Fairmont (no connection), a few miles east of Enid, then connected with BN's line in Enid, where both BN and Santa Fe had yards. Santa Fe ran on BN tracks from the east side of Enid to a location called Blanton on the west side of Enid, where it split off toward Kiowa. Quite a bit of traffic was interchanged here, especially entire grain trains. It was common for the Santa Fe to bring in an empty grain train and hand it off to the BN to load, then get it back and take it through Guthrie to Oklahoma City.

2020: The line between Guthrie and Fairmont is gone. The line from Blanton to Kiowa is also gone. Enid is now a busy a BNSF town, with several grain elevators and other industries generating traffic.

Perry, Oklahoma

1995: The BN (ex-Frisco) line between Tulsa and Avard and the Santa Fe line between Arkansas City, Kansas and Oklahoma City crossed at grade about four miles northeast of town at a place called Black Bear, and then ran parallel through town. There was a connection track at Black Bear, as well as one at each end of town. This allowed BN and Santa Fe trains to share the two parallel lines when one line or the other was blocked.

2020: The connection at the south end of town is gone, but its loss doesn't affect operations much. Most traffic remains on the ex-BN and ex-Santa Fe lines, but fairly regular trains between Tulsa and Alliance, Texas use the connection at Black Bear.

Oklahoma City, Oklahoma

1995: BN's ex-Frisco line between Tulsa and Chickasha (and points west) joined Santa Fe's line between Arkansas City and Gainesville, Texas downtown. The BN line shares a bridge over the Oklahoma River and uses less than a quarter mile of Santa Fe trackage to join the east and west portions of the line. Little traffic was exchanged between BN and Santa Fe.

2020: BN's line was transferred to the state of Oklahoma in 1998, which sold the line to shortline Stillwater Central in 2015. Interestingly, the Stillwater Central outbid BNSF for the line. BNSF apparently wanted it back!

Pawnee, Oklahoma

1995: The line from Pawnee to Stillwater, Oklahoma was an isolated branch of the Santa Fe that was reached by a Santa Fe local running over the BN from Perry (via Black Bear) to Pawnee. There was little traffic interchanged at Pawnee.

2020: The line from Pawnee to Stillwater was sold to shortline Stillwater Central in 1998.

Fort Worth, Texas

1995: BN's ex-FW&D line from Amarillo crossed the ex-Santa Fe line from points north at grade before entering BN's

North Yard. Connections between the two lines were at both ends of the yard, including a wye at the north end. BN's line from Tulsa connected with BN's line between Fort Worth and Dallas. From there trains ran on UP trackage for a short distance to reach North Yard. A lot of traffic was interchanged in the area, including coal trains coming in from Amarillo that would get on the Santa Fe line, change crews at Saginaw, then proceed south through Temple, Texas and power plants further south.

2020: The line between Fort Worth and Dallas was sold to the UP by 2002, but BNSF still uses it via trackage rights as it did previously. Coal still follows the same routing, and grain coming south from the midwest for export at Galveston, Texas are common. The Santa Fe yard at Alliance, Texas has seen major expansion and is now a major intermodal terminal for traffic coming south and from the west from Amarillo and points west on the transcon. BN's North Yard now focuses on servicing local industries.

Dobbin, Texas

1995: BN's line between Dallas and Houston crossed Santa Fe's line between Somerville and Silsbee, Texas at grade near this tiny town.

2020: BNSF added a connection on the southwest corner in 2003 and another connection on the northeast corner in 2018. These improvements facilitate traffic flows between Dallas-Fort Worth and Houston/Gulf Coast.

Houston & Galveston, Texas

1995: BN and Santa Fe did not connect directly. Santa Fe's line from Temple, Texas to Galveston connected with its line to Houston at Alvin, where it connected with the Houston Belt and Terminal (HB&T) on the south side of town. BN's line from Dallas connected with the HB&T on the north side of town, and traffic between the BN and Santa Fe used the HB&T. Most traffic off the BN line was for or from Houston, but a small amount ran over the Santa Fe via Alvin to Galveston.

2020: Most traffic to and from Galveston, especially grain, uses the ex-Santa Fe line through Temple. The ex-BN line sees a lot of petrochemical business via trackage rights on the UP that BNSF got from the UP/SP merger agreement, as well as several intermodal trains a day from the intermodal ramp in Pearland, just south of Houston.

Amarillo, Texas

1995: BN's ex-FW&D main line between Colorado and Fort Worth crossed the Santa Fe transcon at grade through a wye and a series of switches, allowing trains to transfer between railroads in all directions except east-to-east. Santa Fe also had a line to La Junta, Colorado that came in from the northeast. While the vast majority of traffic merely crossed the other's lines, much traffic, especially grain, was interchanged here, including coal trains from Wyoming.

2020: Amarillo is a major BNSF hub, with trains moving in and out on all combinations of lines. A new wye connection track between the ex-FW&D line to Fort Worth and the ex-Santa Fe line to La Junta allows directional running for trains here and Colorado, with westbounds on the ex-FW&D toward Trinidad and eastbounds on the ex-Santa Fe from La Junta. A large fueling facility was built on the ex-FW&D line on the east end of that wye, used mainly by coal trains. Locals head out in every direction on every line from Amarillo.

Plainview & Lubbock, Texas

1995: Before 1995, BN had a line that branched off its line between Amarillo and Fort Worth at Estelline (near Childress) and went to Sterley, which then split and went to Dimmett, via Plainview, and to Lubbock where it met the Santa Fe. The line from Estelline to Lubbock was abandoned in the early 1990's when BN got trackage rights on the Santa Fe line from Amarillo through Plainview to Lubbock. A BN local would come south from Amarillo to Plainview on the Santa Fe, work the BN line to Dimmett, and then go to Lubbock on the Santa Fe to serve BN customers there. Most traffic was interchanged with the Santa Fe at either Plainview or Lubbock.

2020: The entire line from Amarillo to Lubbock is BNSF, but the line from Plainfield to Dimmett was sold to shortline Lubbock and Western in 2007.

Trinidad, Colorado

1995: BN's ex-Colorado & Southern (C&S) between Pueblo, Colorado and Amarillo, Texas line crossed over Santa Fe's line between La Junta, Colorado and Raton Pass, New Mexico. A connection track from the southbound BN line met Santa Fe's line near downtown and was used for a small amount of interchange.

2020: Today the ex-Santa Fe line through town is the exclusive domain of Amtrak's Southwest Chief as no freight traverses the line. The BN line is the westbound directional line from Amarillo, and sees mostly coal empties heading back to Wyoming unless there are problems on the eastbound directional line via La Junta.

Colorado Joint Line

1995: The Joint Line, two roughly parallel lines from Denver to Pueblo, Colorado, one owned by the Santa Fe and the other by the D&RGW, was accessed by BN via trackage rights on both lines, and hence all three shared the parallel tracks. This was BN's route for coal trains to many Texas power plants via the old C&S and FW&D, and provided the Santa Fe with access to customers in Denver and interchange with the other railroads there.

2020: The line is shared by BNSF and the UP, which bought the D&RGW/SP. It is still BN's primary route for coal trains to Texas.

Hot Boxes and Close Calls

by Leo Phillipp

While working as a brakeman and conductor on the Burlington Northern's Chicago and Aurora (C&I) Division in the 1970's I was involved in several potential derailment close calls and hot box situations. I seemed to have a much higher incident rate than most of my co-workers. A couple called me a black cat for my ability to get into these situations. Ride along while I share of few of them in this article.

Hot Boxes

Friction bearing trucks were allowed on newly built cars until the end of 1971. I have knowledge of one tank builder that was still using them on a small portion of new cars as they were cheaper to build than cars with roller bearing trucks. The higher in-service maintenance costs came out of the fleet operations budget and not manufacturing costs!

When I started in train service in January of 1973 my estimate is that 30-35% of the North American fleet was still equipped with friction bearing trucks. Each passing month and year reduced the number of these cars in the fleet through scrapping or conversion to roller bearings. A quick fix was to use the existing friction bearing side frames and by utilizing an adaptor convert the parts to accept roller bearing wheels. Logically these were named converted side frame truck sets which were allowed in interchange service until the mid-1990s.

As the number of friction bearing wheels shrank it seemed to me that they were getting less and less maintenance attention which was causing hot boxes. My first experience with the result of a friction bearing failure was at the Belmont station on the "East End" in May. Train 97 suffered a burned off journal on May 3 that resulted in a massive derailment that blocked all three mains and destroyed the depot. I was on Number 97 the next morning and we were the first train through while the wreck was still being cleaned up. It only took us sixteen hours to make it thirty miles from Cicero to Aurora where we stepped off and another crew stepped on to complete the run to Savanna. It was the only time I was on duty for a full 16 hours.

The next incident was also on the "East End" coming into Eola westbound on a Number 185. As we went under the EJ&E bridge at the east end of the yard I looked back from the my side of the locomotive and noticed smoke billowing from the lead truck of a car about a dozen cars back in the train. This location was the first point where there's a curve on that side of the train since Lisle (9 miles) so I had no idea how long the problem had been ongoing. I told engineer Art Krahn that there was either a hot box or brakes sticking about 15 cars back. He seemed to doubt it. But he quickly picked up the radio and called the Eola yardmaster, Paul Latino, for a quick roll by inspection. Art backed off the throttle but did not set any air so as not cause any other smoking wheels. Sure enough "Pauli" came back on the radio advising "you've got a hot box." Art poured the air into the train and we got stopped in the West Eola plant.

I dropped off before we stopped and after finding the problem car, a BREX wood reefer, we made the cut, pulled west of Farnsworth Avenue and quickly received a signal to back into the yard. As I was hanging on the side of the car I looked back toward the locomotive a couple times for an indication where we were going. Soon I saw that the switches in the plant were directing us into the west yard. Once the lead car was near the "New Track" switch, the first switch in the yard, I flagged Art down and shrugged my shoulders while extending my arms out as if to say "where to?" He hung out the cab with his arms extended, palms up and would drop one and raise one. I had no idea what he was "saying" so I stood there and he did the up and down motion a second time. I still didn't understand as I was expecting a track number which would have been designated by pumping the lower arm the necessary number of times. I hiked up to the lead unit and stood under the cab window. Art then said "put it on the scale track."

I had just received my first lesson in the extensive hand sign language beyond the rudiments I had so far learned. It became a passion of mine to learn as much as I could over the years about this ability to communicate instructions over distance without the aid of a radio. I have shared that knowledge via hand sign presentation clinics at historical society meets a number of times.

We set the car on the scale track, cut away and stopped so I could check the journal and wood floor before just leaving the car. I had heard stories of hot box cars set out that were left without pulling the journal packing, etc. that had resulted in a car burning down to its frame. When I lifted the journal box lid on the problem bearing I found only a little smoke coming off a brand new journal pad with absolutely no oil in the journal. I then found the stencil repack information on the car which was dated just a couple days earlier at Cicero. The carmen had serviced the bearings but forgotten to refill the oil in the journals. Since the R.I.P. tracks (Repair In Place) were next to the departure yard the car had not gone back over the hump where the journal box lids would have been flipped open and journals checked. We proceeded back onto our train and completed the westbound trip. A day later, on the eastbound trip I noticed the car still resting in the same spot on the west end of the scale track and was relieved that it hadn't caught on fire.

A few years later another incident again involved the mechanical department at Cicero. By this time I had begun carrying a packing hook with me while walking an outbound train in Cicero departure yard. Normally the road brakemen were looking for hand brakes left applied or anything dragging from a car. It was much easier to take care of these while in the yard than getting stopped out on the road while in route. I had started randomly lifting journal box lids to check for oil level in the journals. This morning we were on Number 97, which at that time was the highest priority westbound train on the line to St Paul, Minnesota. This "hot" train had the required air brake test performed by carmen rather than the train crew. As I walked along checking things I came upon an SP 40 ' plug door box car with friction bearing journals about a half a dozen cars back from the head end. It had caught my attention since a plug door, forty footer was rare, and being an SP car I suspected it was destined for the west coast. I lifted a couple journal box lids and felt the oil in them was extremely low. I started back along the train as I knew there would be a pair of carmen somewhere near the west end of the train for the air brake test. These two men were grey haired veterans so I explained what I saw and was told the car was fine as it would have received oil when it went over the hump from the receiving yard. I again stated the boxes were low, but I was informed the car would be fine.

I went back to the units and stowed my packing hook back in the nose of the locomotive. Later that morning as we sped past the Oregon, Illinois depot the operator was out on the platform to give us the required roll by inspection. He shortly came in on the radio and advised we had a hot box on an SP box car six back from the power. I went ballistic and explained to my co-workers that I had told the carmen in Cicero that the car was low on oil

Paul Ritli, roadforeman from Aurora happened to be riding with us that trip. We went into the siding at the next station, Stratford, and while we set the car out and coupled the train back together the rear end crew came up, pulled the packing from the journal and put the fire out with an extinguisher. A couple mornings later I received a phone call from Paul Ritli asking if I knew the names of the carmen I had talked to in Cicero. All I could do was describe them and assume they could be identified as the senior men who worked the west end departure yard air tests. The result was that for a while Cicero carmen were required to chalk friction bearing truck cars with their initials and dates at Cicero when they were inspected.

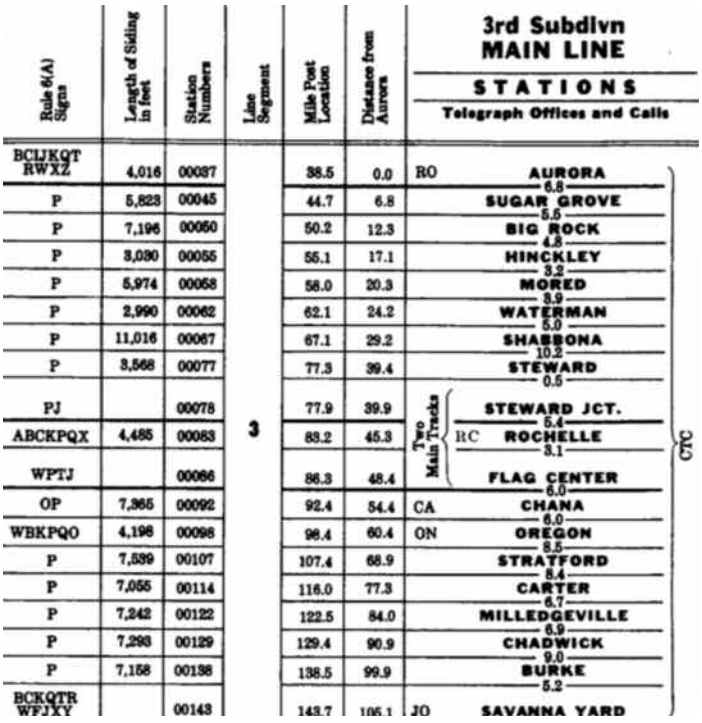
Certain fleets had very high percentages of friction bearings. One of those was the small cube capacity covered hoppers in sand service that originated loaded from Ottawa, Wedron, and Oregon, Illinois. Another subset were loaded with cement in the La Salle, Illinois area. Between heavy loads, leaking sand and what to me seemed to be spotty maintenance these cars were prone to hot boxes.

One night on west bound Number 353 we picked up a long string of loaded sand covered hoppers. Sure enough coming down Burke hill at full track speed a journal among the sand cars lit up the night sky in a long brilliant fire. The conductor decided that since it had just started on fire there was plenty of oil to make it the couple miles into Savanna without stopping to address it. He simply radioed the Savanna yard that we were coming in with a hot box. They had no trouble identifying it!

Another trip, an eastbound Number 364, we picked up the usual long string of sand loads destined to points east via Cicero. At Rochelle we set out one hot box car. Then at Lee [a small town west of Shabbona] the detector found another one that we set out on the former passing track at the east end.

Speaking of Lee, one day our pool turn crew was ordered for a work extra from Eola to Rochelle with a string of empty gondolas. We were to meet the section gang and position the train for them as they picked up track material on Main 1 between Rochelle and Flag Center after a rail relay gang. They were to sort and toss the angle bars, bolts, tie plates, etc. into separate cars as we very slowly moved the train along. But before we could get to Rochelle we were routed into the siding at Shabbona and told we would be held there until a car with a burned off journal was attended to at Lee.

Quickly our original plan was changed to us cutting off our train and taking the engine, a GP7, to Lee and then pulling the rear end of Number 353 back to Shabbona. We began by shoving our train onto the back track at Shabbona, then proceeding to Lee, pulling 353 back to Shabbona, leaving it on the main between the switches, going back through the passing track and back up to Lee, where we carefully coupled onto an ancient EJ&E forty foot gondola with a load



Rule 6(A) Signs	Length of Siding in feet	Station Numbers	Line Segment	Mile Post Location	Distance from Aurora	3rd Subdivn MAIN LINE — STATIONS — Telegraph Offices and Calls	
BCLJKQT RWXZ	4,016	00037		38.5	0.0	RO AURORA	
						6.8	
P	5,823	00045		44.7	6.8	SUGAR GROVE	
						5.5	
P	7,196	00050		50.2	12.3	BIG ROCK	
						4.8	
P	3,080	00055		55.1	17.1	HINCKLEY	
						3.2	
P	5,974	00058		58.0	20.3	MORED	
						3.9	
P	2,990	00062		62.1	24.2	WATERMAN	
						5.0	
P	11,016	00067		67.1	29.2	SHABBONA	
						10.2	
P	3,568	00077		77.3	39.4	STEWARD	
						0.5	
PJ		00078		77.9	39.9	Two Main Tracks STEWARD JCT.	
						5.4	
ABCKPQX	4,485	00083	3	83.2	45.3	RC ROCHELLE	CTC
						3.1	
WPTJ		00086		86.3	48.4	FLAG CENTER	
						6.0	
OP	7,365	00092		92.4	54.4	CA CHANA	
						6.0	
WBKPQO	4,196	00098		98.4	60.4	ON OREGON	
						8.5	
P	7,539	00107		107.4	68.9	STRATFORD	
						8.4	
P	7,055	00114		116.0	77.3	CARTER	
						6.7	
P	7,242	00122		122.5	84.0	MILLEDGEVILLE	
						6.9	
P	7,293	00129		129.4	90.9	CHADWICK	
						9.0	
P	7,158	00138		138.5	99.9	BURKE	
						5.2	
BCKQTR WFJXY		00143		143.7	105.1	JO SAVANNA YARD	

of steel plate and a burned off journal and the side frame resting on the track (see photo below). Somehow 353's crew had managed to stop with the car just feet off the detector sensors. In short order the wheel truck men had a new truck under the gondola and the failed one off to the side. We set the gon out on the east end of the old siding at Lee, went back to Shabbona, got our train and proceeded to Rochelle for a day of heavy metal tossing. If you doubt me try picking up a tie plate or angle bar and throwing it up and into a gondola. I tried and quickly gave up!

One night while working a suburban train I was walking down the Aurora platform between Main tracks 2 and 3 to my assigned car a little before departure, something a bit out of the ordinary occurred. The eastbound Fox River wayfreight was stopped on Main 2 waiting for us to leave off Main 3. I noticed that a sand hopper a few back from the locomotives had a red hot bearing. It was so hot that it glowed red through the journal box cover but there was no flame. I went to the head end and tried to get engineer Gene Benoit's attention from the platform, but to no avail. I then climbed aboard and into the cab. When I told Gene the situation he advised that "Sacko" was back in the second unit and to go tell him. While I was talking to "Sacko," Gene radioed Conductor Kennedy. They had a very short train this night so shortly the entire train crew was addressing the hot bearing while I boarded the dinky and we left town. I went up to the control car and listened to the radio conversation between the Aurora tower operator, who was asking Gene if he was ever going to "take" the signal he had cleared up for him. Gene replied that they had a hot box that a suburban brakeman had found and could not move. The operator sarcastically thanked Gene for letting him know.

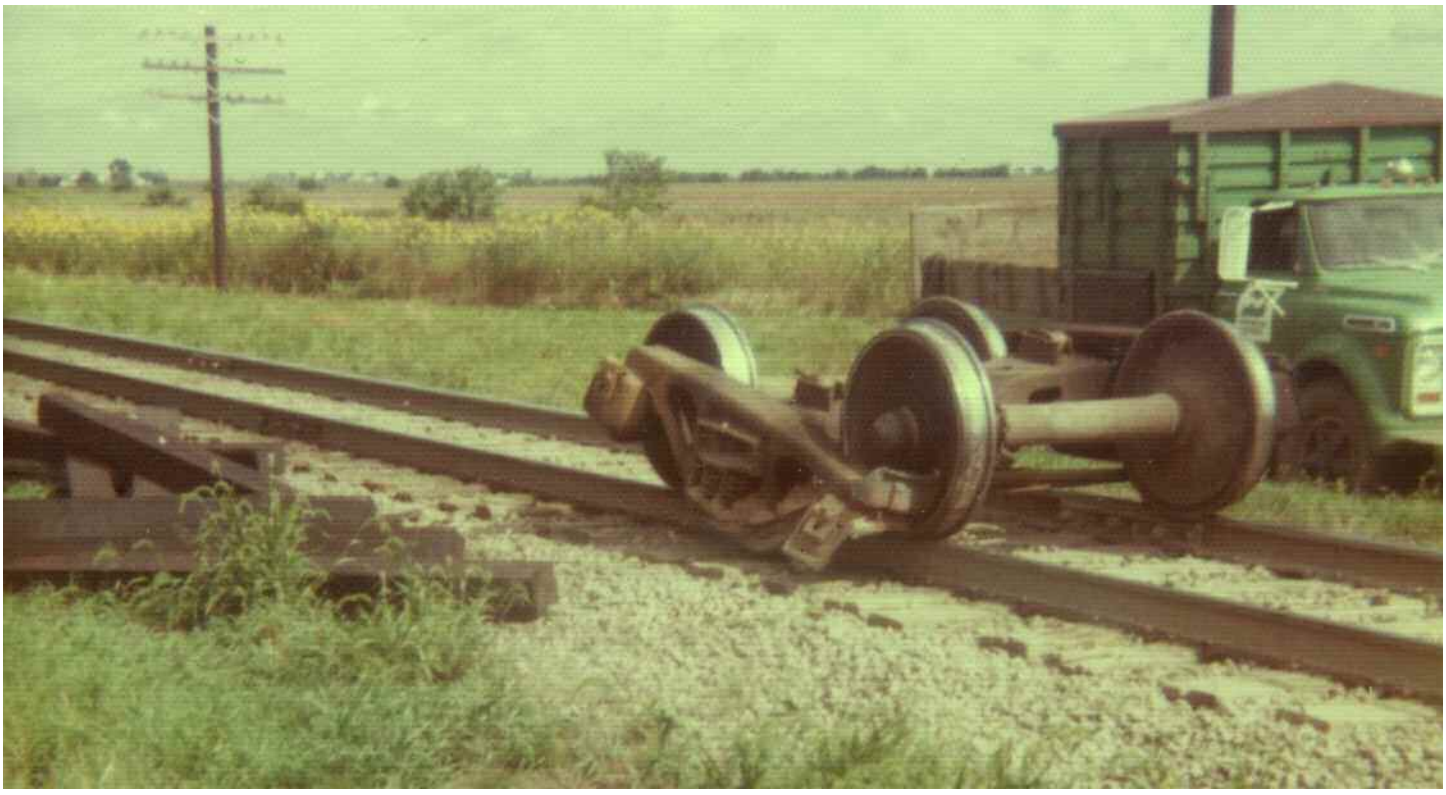
Friction bearing cars were outlawed under the A.A.R. interchange rules in the Field Manual in 1992. Converted sideframes were banned in the mid-1990s.

Close Calls

In addition to hot boxes train crews on the C&I had to be on the lookout for dragging equipment which included wheels that dropped off the rail at low speeds and just bounced along for some distances, sometimes a mile or more, before they met an unmovable object, derailed and took part of the train along into the ditch. Somehow I managed to be involved in a number of these dragging wheel incidents.

One night in March I was the rear brakeman on a second or third Number 185. These trains usually consisted of 80 to 90 or more empties headed for points north and west for reloading, primarily for lumber along with one or two other loads. As usual we had just enough power to drag the train over the many hills on the C&I at about walking speed.

This night as the waycar [caboose] passed the intermediate signal for BX crossing of the C&NW branch line to Spring Valley in the Illinois River valley between Waterman and Shabbona, Ed "double E" Smith turned to me from his side of the cupola and asked if I had any sparks on my side. I slid the windows open, stuck my head out into the drizzle and responded that it was all dark on my side. The waycar



The journal box had completely burned off and the sideframe was dangling just above the ties in this photo taken near Lee on September 8, 1975. Check out the BN MOW truck in the background. It looks like a late 60's green Ford flatbed with a BN sticker on the door.

was at the top of Waterman hill and shortly the train would pick up speed on the downhill side and go banging across the "Norwegian" crossing. Ed immediately grabbed the radio and told the engineer "Stop the train." Then he told me he had sparks flying on his side a few cars up.

After stopping we went to the back platform and, looking at the track, could see the clear cuts to the ties between the rails which indicated a wheel dragging along. We walked up and sure enough only a few cars in front of our waycar was a GN 40 foot boxcar with one wheel off the rails on the trailing truck.

Ed thought we could rerail this empty car in no time. He so informed the dispatcher. We looked for rerailing frogs on the waycar but none were to be found. The head end was taken to Shabbona and pulled onto the siding. The locomotives came back to pull the car back onto the rails. There were no frogs on the power either. We scrounged around the right of way looking for tie pieces or anything that could be used as blocking to raise the wheel back onto the rail. After several futile attempts to pull the wheel onto the blocks and then the rail we gave up. The call went out for nearby trains to look for frogs on their units and waycars. Between one opposing train and one following we came up with a pair of frogs.

We had now turned the C&I into a parking lot from Big Rock to Steward Jct. We thought we were in business as we laid the frogs in position. We found a few spikes and tried pounding them into the ties with the two pound hammers from the waycar, but we couldn't. We tried just setting the frogs in place and pulling the car onto them and up onto the rail. The car just pushed the frogs along. Finally Ed called the dispatcher and advised that we did indeed need the wheel truck to come out to get the car re-railed. After the truck arrived with their equipment designed for just such an event the men had the car re-railed within a half hour.

Lesson learned—call for the wheel truck first and if you do get the car re-railed just say never mind. I've often thought about what it would have been like to be in the waycar just a few cars behind the car with the dragging wheel when it struck the frogs at the BX crossing at track speed. There would have been a small pile of cars and the waycar would have been right in the mix.

On a late April day we were Eastbound down Sugar Grove hill at all of 60 MPH, maybe a bit more. The engineer was stretching the train for the air brake application to slow for the Aurora elevation and its speed limits. As the waycar got close to the intermediate signal for the Aurora siding I saw a 16 or 20 foot long 1" by 10" or 12" piece of lumber go airborne from a flat car a few ahead of us. As it flew along it just missed the signal mast. I looked over at conductor Lew Peshia, a quiet, soft spoken veteran of many years. He sat there thinking for a few seconds and then reached for the radio and called the head end. He simply said "Waycar to engineer on Number 82, stop the train."

Once stopped a trip to the back platform again revealed wheel cuts into the ties behind us. We sure weren't expecting that, especially at 60 MPH! It was a short walk of 6-8 cars where we found a empty "Q" bulkhead flat car with a pair of wheels bouncing along on the ties. A few cars ahead of that was a "common" standard flat car with a load of dimensional lumber banded together with stakes in the floor pockets to keep it from shifting. These did not stop the load from shifting lengthwise on the car. A couple bundles on the top had shifted into the boxcar behind the flat. We often saw this type of movement but let it go as the boxcar end held the load in place. This time some of the bands had broken and the lumber was working itself lose.

After notifying the dispatcher of the situation, Assistant Superintendent Joe Arrington radioed asking our location. He said he was on his way and arrived very quickly as he had been in his office at Aurora depot. He walked up with a new trainmaster I didn't know and asked if we had felt a broken rail on the way down the hill. We both said no but he was sure there had to be a broken rail somewhere behind us and sent the trainmaster walking back to find it. In the meantime he asked if we could cut away from the derailed car and take the head end to Eola, then return with the locomotives to rerail the flat. Before we left the trainmaster had returned and advised there was a broken rail about a mile back on the north side. That was the side I was riding on and never felt it!

So we proceeded to Eola while the wheel truck and section gang were called. We pulled the train into the running track and headed back west with the power. In the meantime an Eola switch crew cut the shifted load of lumber from the train and placed it on the west yard RIP track where it sat for about a week until the load was pushed back in place and re-secured.

Shortly after arriving back at the Blackberry creek derailment the wheel truck arrived. In no time they had the car re-railed using our power to pull the car onto the frogs and the rail. A quick inspection by the carmen approved the car for movement. We headed to Eola to couple the train back together. While in route, Lew asked me if I knew how lucky we were. I said I think so. He asked "Where do you think the waycar would have ended up if that wheel had caught in a switch or frog on the elevation?!"

I often think how different train operations are today what with F.R.E.D.s and a whole host of line side detectors, no waycars and just the two men up front on a mile and half or two mile long train. Did I mention that the dragging equipment indicator on the Blackberry creek signal mast, that we almost took out, was blinking an all clear signal as we passed?!

There were a couple more of these situations but I think I've said enough for now. Hopefully the reader has become aware that back in those days we weren't "just riding around" as I have been told by some over the years.

Fred Smith's 1/8 Scale BN Trains

(plus one of Conrad Firkus's too)

FOBNR member Fred Smith out in southern California is a BN modeler in the 1/8th scale and sent in photos of some of his work, along with his good friend Conrad Firkus's work too. The locomotives and cars are beautiful, and obviously kept in pristine condition. He operates his trains at the Sacramento Valley Live Steamers in Sacramento, California and at other clubs such Train Mountain in Chiliquin, Oregon and Central Oregon Area Live Steamers (COALS) in Bend.

Fred's SD40-2 #6751 was built by Mountain Car Company in Virginia, which has subsequently been renamed Titan Trains. His SW-7 #129 was built by Rail Systems Company in southern Oregon. The engines are powered by gasoline engines that drive a hydraulic pump which in turn runs a hydraulic motor on each of the trucks. A control box can be attached to either the front or the back of an engine that has a potentiometer to control the amount of forward and backward motion. It also has a pneumatic brake system that applies brakes to the engine and each of the cars on the train.

Fred's caboose was built from a kit from Mountain Car Company. He added windows, grab irons, ladders, and lights for night running and then Conrad painted it for him.

Conrad also built Fred's BN wood-chip car. He took an HO scale model and proportionally increased it up to 1/8 scale. Eighty percent of Fred's freight cars are scratch built by friends of his, and the rest are kits.

The SD45 #6430 belongs to Conrad, and was also built by Rail Systems Company. When he got it in 2004 it was in Southern Pacific colors. Towards the end of 2014, Fred and Conrad overhauled the engine and repainted it as the Hustle Muscle, a good choice!

That's Fred behind his SD40-2 and his buddy Conrad behind his Hustle Muscle SD45 in the photo on the right.

Rear Cover Photo: MRL tribute to veterans locomotive, painted in time for Veterans Day 2020, poses in Livingston, Montana on November 6, 2020 and has since been touring the system. Photo by Justin Franz.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MRL
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SD70ACe
STOP