

The BN Expediter

Volume 24, Number 1

January 2016

Along the Sweetgrass Sub



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, and the BNSF Railway.

Friends of the Burlington Northern Railroad

PO Box 271, West Bend, WI 53095-0271
www.fobnr.org

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Registered in the State of Idaho

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 and its successors. 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.

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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 and its successors, from the 1970 merger on. 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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Board of Directors Election Request for Nominations

The current terms of office of John Adams and Gary Seymour 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, 2016 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 2016 issue of *The BN Expediter*. Voting will take place by mail.

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

500 Stonehenge Drive
Rock Hill, SC 29730

email: bnsfdh618@yahoo.com

Sustaining Members

On behalf of all our members, the **FOBNR** Board of Directors would like to take this opportunity to thank our sustaining members for 2016. Their generous contributions to the finances of the **FOBNR** has helped us to continue furthering the goals of our organization.

John Adams	Jeff Hendricks	Richard Rink
Tom Bentley	Mark Herrick	Kim Saign
Jay Burkgart	Jesper Kaae	Bob Sanchez
David Burns	Steve Koberstein	Harlan Schmidt
Kent Charles	James Kreger	Gary Seymour
Gayle Christen	Devyn Kukowski	Dennis Shogren
Kenneth Cocherell	Dennis Lutz	Bryan Smith
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Mark Dennis	John McPhee	Chuck Sted
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Micheal Farley	John Parker	Charles Taylor Jr
Peter Ferch	Dennis Popish	John Tenerowicz
Roger Field	Dave Poplawski	Aric Van de Vord
Wade Griffith	T. Michael Power	Don Winn
Bill Harvey	Emery Rahm	Gary Wlodarczyk

Information/Photos Needed

April, 2016

Glendive, Montana. Our 2016 convention will be in Glendive this summer, and we'll be running an article about the area. We need photos of various railroad facilities and operations, along with information about the history and current operation of the facilities in town and the surrounding area.

Sweetgrass Subdivision. Part 2 of the article began in this issue, focussing on the connecting branch-line subdivisions of Valier, Choteau, Fairfield, Ft. Benton and Helena. We're looking for photos especially along the Ft. Benton sub and the south end of the Helena sub.

Mobridge Subdivision. Another "Right of Way" article by Peter Ferch. If you have photos or any other interesting information about the line or its use, please send it in.

July, 2016

Action at Fairview Avenue. An article about two hours of constant commuter train activity at Fairview Avenue on Chicago's busy 3-track racetrack. Locals terminating and reversing, expresses flying through or crossing over to become locals, the choreography of the evening Dinky rush is quite amazing. If you have any information about the planning that went into this "dance", please let us know.

BN Pacific Days, 1974-79. Another great article from Dave Burns about his experiences as Division Superintendent of the Pacific Division. Photos from that area during that time period would be appreciated.

FOBNR 2016 Convention Glendive, Montana June 8-11

Planning continues for our annual convention. As of this time we will be going at least two different directions for railfanning. One of the day trips is heading towards the east to the Sully Springs/Fryburg (North Dakota) area which is still a helper district on the BNSF. This is a great area to take awesome pictures with the badlands of North Dakota in the background! We are also going to take a day trip watching trains on the Sydney line. This line has been greatly improved due to the oil boom, giving BNSF a route to the northern trans-con at Snowden, Montana. We are awaiting confirmation on a tour through parts of the BNSF Glendive terminal. As well as slide/photo shows, we will have our banquet on Saturday night followed by the annual auction.

We have a block of rooms reserved under the name **Friends of the Burlington Northern Railroad** until May 28th. They are \$89.00 for 2 queen beds or a standard King. Due to the high amount of construction going on in the area, rooms are very far and few between even at the other hotels in the area, so be sure to reserve a room early, and definitely before the May 28th!

Hotel Information:

LaQuinta Inn and Suites
Address 1717 N. Merrill Ave
Glendive, MT 59330
Phone Number: 406-377-7300

Watch for more info on the FOBNR website and in the April issue of *The BN Expediter*.

Cover Photo: A southbound BNSF empty grain train comes by the grain elevators at Dutton, Montana, on October 3, 2001. With the clean units and matched "earthworm" covered hoppers, it almost looks like the BNSF company photographer arranged for this move, but back in 2001, it was a common sight. Mark Demaline photograph.

New Members

Jeff Ellefson 15-021
(address withheld by request)

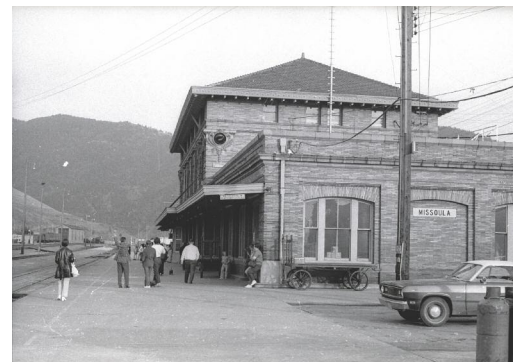
Neil Thomsen 16-001
(address withheld by request)

Brian Okiec 16-002
3445 Moasic St
North Las Vegas, NV 89032

Bud Casper 16-003
(address withheld by request)

In the previous issue of *The BN Expediter* we said that we would explain why the train being waited for in the photo to the right was called the "Passenger Extra West".

It is because they were awaiting the final arrival of BN's late westbound North Coast Limited's "Last Run" from St. Paul-Minneapolis to Seattle. Since it no longer had timetable authority after 12:01 AM on May 1, 1971 when Amtrak took over, it was operated as BN "Passenger Extra West" May 1-2. It completed its westbound "Last Run" in Seattle's King Street Station the next morning on Sunday, May 2, about four hours late. Its through cars en route from Chicago had been transferred in St. Paul Union Depot from BN's westbound Afternoon Zephyr's "Last Run" operated from Chicago to the Twin Cities. Since it was Friday, this westbound Afternoon Zephyr was operated in two "Sections". The "First Section" had the through cars from Chicago en route to the Pacific Northwest transferred in St. Paul Union Depot to BN's westbound Empire Builder's "Last Run" consist and to BN's westbound North Coast Limited's "Last Run" consist. The "Second Section" had the Afternoon Zephyr's cars en route from Chicago to Minneapolis. This "Second Section" was the last passenger train to use St. Paul Union Depot, which was closed permanently following its departure for Minneapolis. Thanks to John Strauss for this interesting information.





The first time I photographed BN's Paradise Local was in April of 1981 with a pair of ex-NP GP9's. Most days the local ran from Paradise, Montana to Sandpoint, Idaho on the ex-NP main line one day and back to Paradise the next. It always had Geeps when I saw it but by 1987 it was running with a pair of ex-SLSF GP38-2's. After MRL took over operations in late 1987, ex-BN GP9's were back on the Paradise Local once again.

MP 135 is 13.5 miles west of Paradise. The siding here is known as Weeksville. Above is the eastbound Paradise Local on June 2, 1988 behind MRL GP9's 1731/1744, the first summer of MRL operations, passing a former Northern Pacific semaphore with the engineer enjoying the warm summer day.

27 years later on October 16, 2015 we have the east-

bound MRL Paradise Local once again at Weeksville behind SD40-2XR 252 and GP9 113, But there are more changes here than the obvious.

The run of the Paradise Local is about to come to an end. With business way down and fewer customers in the area, MRL has decided to abolish the Paradise Local and run the remaining business on the Gas Local trains between Missoula and Thompson Falls. The last Paradise Local ran on October 23, 2015. It will be interesting to see if MRL can still provide the service the Paradise Local did to keep the remaining customers happy, and if the Gas Locals can keep to their scheduled cycles with the added work they will now have to perform.

Sometimes change can be a lot more complex than just the scenery.

Then & Now

1988 / 2015

The Paradise Local at Weeksville, Montana

Article and photos by Brian Ambrose



Along the Sweetgrass Subdivision

by Mark Demaline

Photos by the author unless otherwise indicated

Please come along with us as we take a photographic tour of the Sweetgrass Subdivision of the BNSF, from Great Falls, Montana, north to Shelby, ending at the Canadian border at Sweetgrass.

Although now split into the Great Falls Sub (Great Falls-Shelby) and the Sweetgrass Sub (Shelby-Sweetgrass), during most of its existence, first under GN, then BN, and finally into the early BNSF era, it had been known as the Sweetgrass Sub. The line was originally incorporated in 1889 as the Great Falls and Canada Railway by the Galt family of Lethbridge, Alberta as a way to expand the reach of their coal into the U.S. Constructed as a narrow gauge line, it was completed in October of 1890.

However, as Montana-mined coal became much cheaper, Galt's business decreased, and the family sold the U.S. segment to the Great Northern in 1901 for \$750,000, with the purchase agreement requiring GF&CR to convert the line to standard gauge.*

The GN, and then BN, continued to operate the line, becoming part of an East-West alternate route to the Hi-Line via Havre-Ft Benton-Great Falls-Shelby, until BN severed the line between Havre and Ft Benton. However, under both BN and now BNSF, it has remained an important route for both Laurel-Shelby freight moving to and from the CP at the Canadian border, and local traffic generated along the line and its branches—mostly agricultural commodities, especially grain.

We should also explain and clarify the geographical versus timetable orientation of this line. Geographically the line runs basically North-South. Through both the GN and BN eras, and into BNSF era, the employee timetables (ETTs) considered the Sweetgrass an East-West Subdivision, with west-

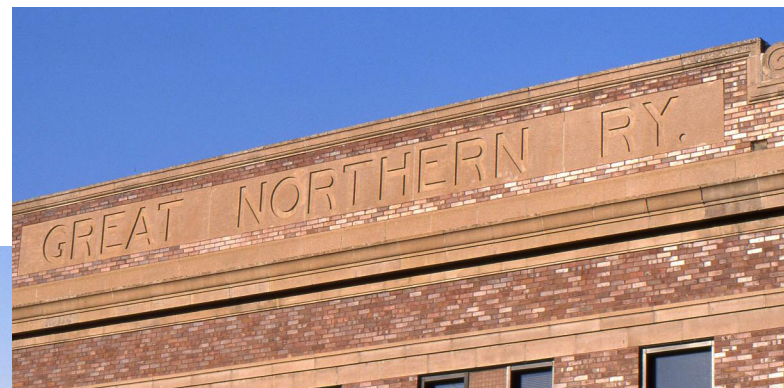


The ex-GN station, built in 1909, is now the home of Energy West, but was used by GN and BN for passenger service, and after 1971, by BN for a few more years. It is located at the South end of the bridge, and is the junction for the Sweetgrass (now Great Falls), Ft Benton, and Laurel Subdivisions. Photo taken October 6, 2003

bound trains heading from Great Falls towards Shelby and Sweetgrass, and the reverse for eastbounds. However, in BNSF's Montana Division Timetable No. 6 (April 26, 2006), the ETT direction was switched to North-South to better match the geographic orientation. Thus, so as not to confuse our readers, we will use "North" and "South" in our photo captions, regardless of the year of the photograph.

We will cover the other Subdivisions (branches) that connect with the Sweetgrass Sub in the April issue of *The BN Expediter*. Last but not least, kind thanks to the following individuals who were kind enough to share their photos and information in the completion of this effort: Michael Ridout, Dennis Shogren, John Strauss, and of course, Dave Poplawski.

*source: Galt Railway Historic Park, 2014.



The former Great Northern Express and Commissary building is NE of the station, and also was used into the BN era. It is now the 30 Railroad Square office complex. Also October 6, 2003.



Great Falls



The BNSF Great Falls yard is just north of the diesel locomotive facility. A car repair shop and M-of-W facility also are located here.

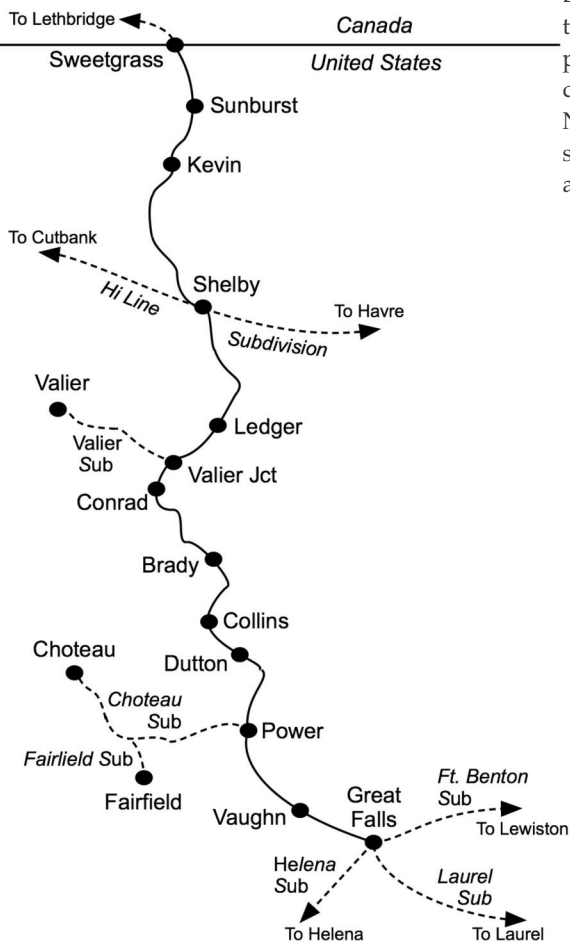


At the West End of the bridge is BNSF's ex-GN diesel shop and turntable. One of the post-WWII improvements made by GN as it dieselized, the shop still has "GREAT NORTHERN" adorning its north side, on October 4, 2000. Photos above and right by Dennis Shogren.

Great Falls Terminal

Just west of the former GN/BN station is the bridge over the Missouri River (below). On October 9, 2000, BNSF 3131 leads three of her sister GP50's over the bridge with a train headed down the Laurel Sub. Many of the GP50's could be found here in the early 2000's.

About a mile east of the station and Express building, there are a number of local Great Falls industries served by BNSF, including Cereal Foods, below being switched by BNSF 3466 on October 13, 2003





BNSF pride shows in the various department signs in the Great Falls area.



Sun Prairie A northbound unit coal train, led by 9809, plus one more up front and two DPUs, comes through one of the S-curves at Sun Prairie, on October 13, 2009. He is just north of Great Falls. The Great Falls airport sits atop the large plateau in the background.

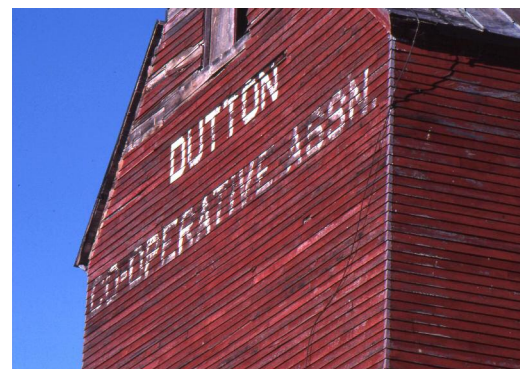


Vaughn On October 3, 2001, BNSF 2669 and three other units come south at Gordon Road, in Vaughn, probably returning from the Choteau Sub, after heading up there and working the previous day, with no time left for the crew to return.



Power

BNSF 4646 is southbound with an empty grain train at Power, on October 3, 2001. A few cars back is the junction of the Choteau Subdivision, which runs west to Choteau and Fairfield MT.



Dutton

We're looking north, at times also "Railroad West", at Dutton, on October 12, 1999. The station and most of the grain elevators here still stand today; however, the classic red "Dutton Cooperative Assoc." grain elevator was removed a few years ago.



The scene above, photographed from the north edge of Dutton, looks north towards Collins, the Hi-Line, and even to Canada. It exemplifies the geography and agricultural lifeblood of the Sweetgrass/Great Falls Subdivision. Not much has changed even today from this October 9, 2000 view. The red elevator in this photo, between Dutton and Collins, is not the same one shown on the previous page.



Collins

A northbound grain train is coming across the first of two bridges at Collins (above). He will cross the second bridge, of the same design but shorter in length, after passing the station site and sign at the old grain elevator (left). Both of these photos were taken on October 8, 2000. A few miles to the north of this former station site is one of the new large capacity, unit train loop-style grain loadouts, designed to load BNSF grain trains quickly, allowing excellent cycle times to both domestic and export terminals, with the benefit of improving car utilization and turnaround times for equipment and power.

Brady

We are looking north at Brady, on October 12, 1999.





Coming into the north end of Conrad, on October 11, 1999, is a southbound BNSF empty unit "TroughTrain", led by BNSF 8808 and 3 other units. As we took our going-away photo, we captured a great background, showing not only the train and dramatic sky, but an excellent overview of Conrad, the largest town between Great Falls and Shelby. Later, I found a similar, 1950's GN black & white P.R. Department photo, taken from the same location, noting the scene of "prairie skyscrapers" rising from the landscape.



Conrad

At the south end of Conrad, MT, a southbound turn is switching one of the grain facilities. BNSF 3518's train is next to some of the newer silos in town. In October, 1999, when this photo was taken, the silos were handling product for Anheuser-Busch. There is now a new unit grain train loop loadout just south of town.

On the bitter cold and frosty morning of October 5, 2000, the classic General Mills and adjacent grain elevators have cast shadows on the Conrad depot. We are looking west.

Two years later, on October 8, 2002, the northbound Sweetgrass turn is working at Conrad and coming by the station.





And for hardcore station and railroad structure fans, here is a 3/4 photo of the Conrad station, taken on October 3, 2007, looking to the northwest. It's been kept in great condition by BNSF and still stands today.



Valier Jct

As our photo journey heads north towards Shelby, the next location from Conrad is Valier Jct, where the Valier Sub connects with the Sweetgrass main. By the way, we will tour both the Valier, Choteau, Ft Benton, and Helena Subdivisions in upcoming issues of the Expediter. On this October 8, 2002 day, a northbound Sweetgrass turn comes by an older mode of horsepower at Valier Junction.

Ledger

Our last active station stop before Shelby is at Ledger. We are looking north on this cloudy October, 1999 day.



The Sweetgrass turn, with 5 units and led by 6334, is on the Sweetgrass Sub, approaching the connecting switch to the Hi-Line main at Shelby. The date is October 6, 2003, and we are looking east. Sweetgrass trains would often be held here, to wait for Hi-Line trains, including Amtrak, and then be permitted to enter the main and the yard.



Welcome to Shelby! We are standing next to U.S Route 2, looking north-west. The ex-GN Hi-Line main is to the right, and behind this sign is the connecting switch with the Sweetgrass main to Great Falls. October, 2000.



This ex-GN building was a 2-stall engine house at one time, which lasted into the BN and BNSF era as a company storage building. We are looking east in this October, 2005 photo. There had been some damage to the wall and roof on the east (opposite) side, but it was repaired and is now used for one of the transload operations which now are handled here. This former stock yard area now handles cross border lumber and other rail/truck transloading.

A northbound BNSF Sweetgrass turn (facing west here) is near the east switch at Teton Jct at the West end of Shelby, preparing to head north. BNSF 8050 and 4 other units are in charge, in this October, 2001 view.





Here is an October, 2000 view of the Shelby depot, in still used by both BNSF and Amtrak. We are looking northwest.

Shelby

The Shelby BN Intermodal facility sign was still intact in this October, 2007 day. It is on the north side of the Hi-Line yard, west of the Shelby depot.

On October 8, 2001, the old yard on the Sweetgrass Sub—on the south side of U.S Route 2, across from the Hi-Line main—still had sections of old rail. Here is a marked section showing “GN LINE LACKAWANNA 1915”. Of course, “Lackawanna” referred to Lackawanna Steel, near Buffalo, NY.



On October 8, 2007, CP 8733-9633 and their train are stopped at the West end of Shelby yard, waiting for a crew to be called to take this train north to the BNSF-CP border crossing at Sweetgrass, and into Canada at Coutts.





Kevin

Kevin (ronounced "kee-vin") is a lonely and remote point on the Sweetgrass Sub, with an ancient prairie elevator and newer oil storage tanks the only structures to get in the way of the winds out of the Northwest. The siding to the grain elevator was removed years ago. Left photo January 10, 2015.. Photo above October 17, 2015.

All photos on this page were taken by Micheal Ridout.

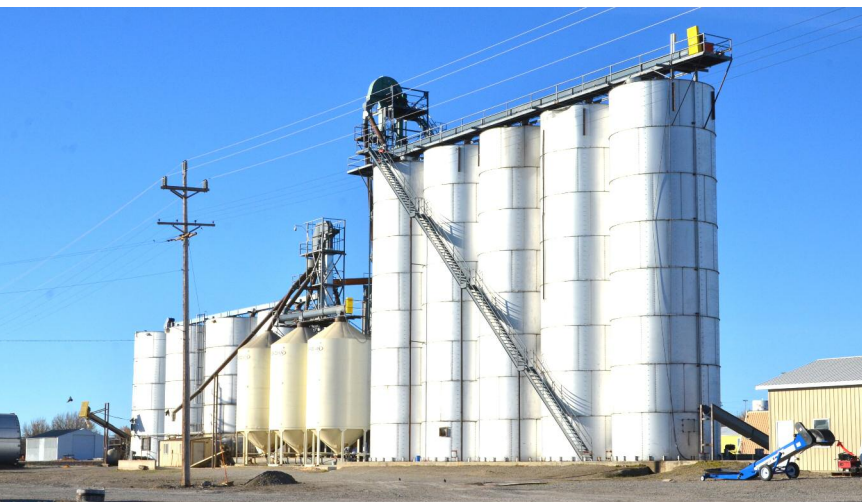
The flat prairie seems to go on forever as the tracks disappear into infinity. Actually, this is looking north, with the Sweetgrass Hills near Sunburst barely visible as bumps on the horizon. February 28, 2015.



Sunburst

At Sunburst, there is more activity, as well as rail business for BNSF. Although this area is also in the flatland of the valley leading to Sweetgrass, there is still some agricultural activity. October 17, 2015.

There is a covered hopper car at the Sunburst elevator, across from the station sign.





A northbound BNSF / CP coal train is in the siding south of Sweetgrass, on June 19, 2013. This train came north through Shelby, but the crew stepped off and returned to Shelby via a crew van. CP 8892 leads a BNSF SD. Dennis Shogren photo.



The Columbia Grain (CGI) facility at Sweetgrass literally put an old grain truck out to pasture, using it to mount the sign for their silos. October 17, 2015. Michael Ridout photo.

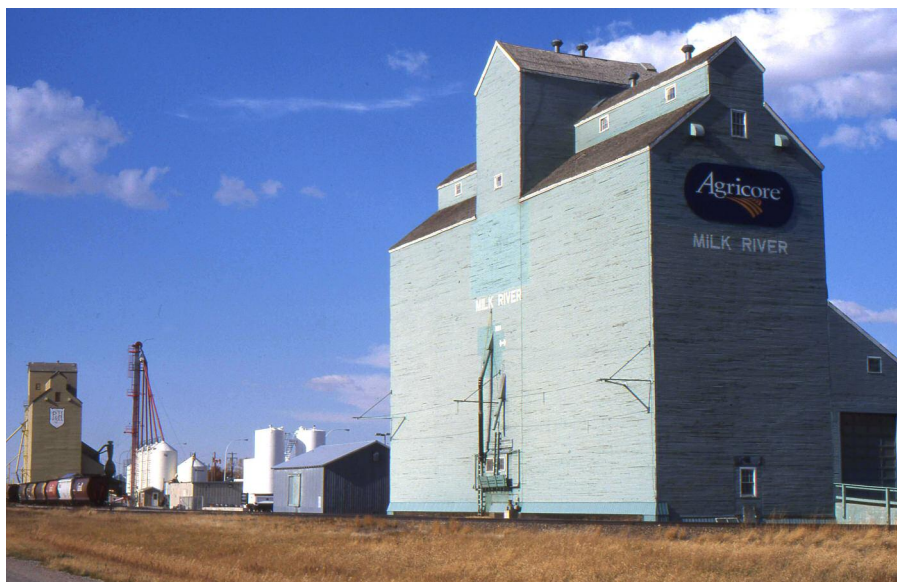
Sweetgrass



Sweetgrass, Montana is the northernmost point of the BNSF Sweetgrass Sub, although BNSF crews will work north into the adjoining Alberta, Canada town of Coutts. This very nice view was also taken on June 19, 2003 by Dennis Shogren.

CANADA

We will end our tour of the Sweetgrass Subdivision with two photographs, including the "Welcome to Coutts" sign, and, to give an idea of the agricultural region which extends across the border to the first station north of Sweetgrass/Coutts, the elevators along the CP at Milk River, Alberta. CP trains continue north to and from their yard at Lethbridge, Alberta. Coutts sign, June 2013, by Dennis Shogren. Milk River, October 2003, by the author.



Rocky Mountain Days – Part II

1974 – 75

by Earl J. Currie

All of the assignments I was given in my career with Burlington Northern were rewarding and worthwhile experiences, although I would rate my 17-months as the Superintendent of the Rocky Mountain Division as among the best I had.

It was an honor and a pleasure to follow Dave Burns for whom I had developed respect and admiration for the values and leadership traits he had demonstrated when both of us served on the Chicago Region staff in the early years of BN's formation.

The Rocky Mountain Division had several very capable track, bridge and equipment maintenance officers who were more than glad to share their experience and expertise with an officer who was on his first assignment as a Division Superintendent. Although I'd held challenging positions as Terminal Superintendent in the Twin Cities, and as Assistant Superintendent on the Chicago Division, promotion to Division Superintendent meant that I also had to master the maintenance of way and maintenance of equipment functions well enough to be able to manage them. Unlike most railroad companies, Division Superintendents on BN were responsible for these maintenance functions in addition to the operation of trains and yards.

In my first meeting with J.O. Davies and Wayne Arntzen, the Vice President and Assistant Vice President, Operations of the Billings Region, I was told to spend the majority of my time in learning enough to be seen as "qualified" to handle the mechanical and engineering functions. The transportation function on the Rocky Mountain Division was simple and routine enough to not require intense, daily direction from the Division Superintendent himself, to keep it running well. For all of these reasons, I was fortunate to have been assigned to an "intermediate" level division rather than to one of the large and very challenging divisions with very large, complex terminals such as the Spokane, Pacific or Ottumwa division, which was responsible for the large yards at both Kansas City and Galesburg.

Being promoted to Division Superintendent fulfilled the goal I had set for myself in my early years of railroading, to be promoted to Trainmaster and in time, to Superintendent. To this day I believe the Division Superintendent is one of the most respected positions on a railroad. It is the highest position one can hold in which you have a great deal of authority and responsibility, but you still are close to the employees and all of the physical activity that goes on in a railroad company. The time I spent as Superintendent at Missoula prepared me very well for my next assignment, which was a lateral move to Division Superintendent at Lincoln, NE. On the Nebraska Division, we were in the throes

BURLINGTON NORTHERN INC.

BILLINGS REGION

MONTANA, YELLOWSTONE AND
ROCKY MOUNTAIN DIVISIONS

TIME TABLE 12

To be used in conjunction with
Special Instructions currently in effect

IN EFFECT AT 12:01 A.M.

CENTRAL STANDARD TIME – JAMESTOWN-MANDAN

MOUNTAIN STANDARD TIME { MANDAN-PARADISE
BAINVILLE-CONKELLEY

PACIFIC STANDARD TIME – PARADISE-KOOTENAI

Sunday, April 27, 1975

Including National Railroad Passenger Corporation (NRPC) Trains

Asst. Vice President
Transportation
R. G. JOHNSON

Asst. Vice President
Operations
C. J. BRYAN

of major capital and maintenance programs to upgrade and expand track capacity on each of the division's six main line subdivisions. I was glad I had just served on a division where I learned what was required to keep the track in great shape, and where we had a large locomotive maintenance shop (at Livingston) in service.

Success in Safety

The greatest reward I had while serving at Missoula was being head of the division that achieved first place in safety, by having the lowest frequency ratio for employee injuries. A great deal of the credit for this success was the leadership Dave Burns provided by building the foundation needed for success in safety, so soon after the 1970 merger. This achievement also was representative of the skills and positive attitudes employees had toward their professions and their fellow workers, and the values BN stood for. It was inspiring to look at the long line of first place trophies the Rocky Mountain Division had won over the years, going back to the early 1950's when Norman Lorentzson, BN's President, was serving as its Superintendent.

Characteristics of the Railroad

Main line, Laurel – Sandpoint

Over the span of many years, the track on the main line between Laurel and Sandpoint and most branch line mileage had been maintained very well. Much of the rail on main tracks was continuous welded 115-lb. or 132-lb. rail, although there still was some old 112 and 131-lb. conventional bolted rail yet to be relayed. Before the merger and for a short time after, some 132-lb. rail had been laid, but in 1974, the System Engineering Department determined that 115-lb. rail would be used on main lines where the annual gross tonnage was projected to not exceed 10 million gross tons per year. As a result of that decision, new 115-lb. rail was to be the standard on the Rocky Mountain Division.

Perhaps the most interesting and challenging characteristic on the division was the heavy grades on mountain crossings. The table below shows the grades over each of the mountain passes we encountered:

	Westbound%	Eastbound%
Boseman Pass (1)	1.8	1.9
Mullan Pass (2)	2.2	1.4
Homestake Pass (3)	2.2	2.2
Evano Hill (4)	2.2	2.2

- (1) crossing of the Gallatin Range, 13 miles west of Livingston
- (2) crossing of the Continental Divide, 20 miles west of Helena
- (3) crossing of the Continental Divide, 10 miles east of Butte
- (4) crossing of the Corican Defete, 17 miles west of Missoula.

This line served as an alternate route to the main freight route on a river grade via St. Regis, although that route was 29 miles longer than the line via Evano.

The main line of the former Great Northern (GN) Railway across Montana ran roughly parallel to the former Northern Pacific (NP) line of the Rocky Mountain Division. It had no westbound ascending grades exceeding one per cent anywhere from Minneapolis to the east slope approaching the Cascade Mountains in central Washington. Except for the 2.2 percent grades over the Cascades the GN had an

MONTANA DIVISION

T. W. MACKENROTH — Division Superintendent, Havre

W. T. SLOAN	Asst. Supt. Transportation & Administration	Havre
C. G. ROSS	Asst. Superintendent Roadway Maintenance	Havre
H. J. BELL	Asst. Superintendent Mechanical	Havre
W. R. WALTERS	Trainmaster	Great Falls
E. F. CARMAN	Trainmaster	Glasgow
M. C. NYBERG	Trainmaster	Whitefish
J. A. McKAY	Trainmaster	Havre
D. J. LUMSDEN	Road Foreman	Great Falls
E. FRANK	Road Foreman	Glasgow
A. P. HEDRICK	Road Foreman	Whitefish
G. A. ECKLUND	Road Foreman	Havre

YELLOWSTONE DIVISION

E. M. MARTIN — Division Superintendent, Glendive

W. R. RICHTER	Asst. Superintendent Transportation	Glendive
R. E. SCHUETT	Asst. Superintendent Administration	Glendive
W. D. GRAY	Asst. Superintendent	Billings
W. D. WILLIAMSON	Asst. Superintendent	Sheridan
W. H. HEMBERRY	Asst. Superintendent Mechanical	Glendive
D. R. ROGERS	Asst. Superintendent Roadway Maintenance	Glendive
J. W. HOFF	Trainmaster	Mandan
K. D. WALTON	Trainmaster	Glendive
C. J. FERDERER	Trainmaster	Forsyth
J. B. MacLIVER	Trainmaster	Sheridan
T. M. LEWIS	Road Foreman	Dickinson
W. DEWALD	Road Foreman	Glendive
R. E. CHRISTENSEN	Road Foreman	Forsyth
J. B. MacLIVER	Road Foreman	Sheridan

ROCKY MOUNTAIN DIVISION

E. J. CURRIE — Division Superintendent, Missoula

L. L. WOLLSCHLAEGER	Asst. Supt. Transportation & Administration	Missoula
J. W. CRAIG	Asst. Supt. Mechanical	Livingston
N. J. NIMEY	Asst. Supt. Roadway Maintenance	Missoula
D. E. LOE	Trainmaster	Greybull
H. W. JOHNSTONE	Trainmaster	Billings
W. T. REILLY	Trainmaster	Livingston
A. E. HASSON	Trainmaster	Helena
G. C. McKINNEY	Trainmaster	Missoula
E. W. KELLER	Terminal Trainmaster	Missoula
G. J. STENHJEM	Road Foreman	Missoula
W. D. MURRY	Road Foreman	Livingston
A. L. VINING	Road Foreman	Greybull
D. L. BANTER	Road Foreman	Spokane

ascending eastbound grade in excess of one per cent in only one location, a grade of 1.8 per cent approaching the Continental Divide in the Rocky Mountains. This difference in the severity of grades was a major factor in the decision to designate so much of the former GN line as the "preferred route" for northern transcontinental traffic.

Four somewhat parallel segments of the Rocky Mountain Division were loosely thought of as a "quasi double track railroad." That was true in the case of the alternate routes between De Smet and Paradise. The shorter of the two segments (via Evaro) had severe grades of 2.2 per cent and was used almost entirely for the passenger trains and light tonnage freight trains. The main route via St. Regis was built on a river grade of only 0.4 per cent and was used for the heavy freight trains. Both lines were equipped with ABS (automatic block system) but no CTC. With only six regular freight trains and a local train running on the St. Regis line most days, and only the two passenger trains and a local freight train on the line via Evaro, CTC was not needed on either line.

The two lines were not used on a directional basis, which could have had them "qualify" as double track. For a short time before most of the division was sold or leased to form Montana Rail Link (MRL) in 1987, the Evaro line was shut down except for the westernmost portion that was needed for access to the branch line between Dixon and Polson. However, MRL restored the entire line to service. Under MRL ownership traffic increased enough to justify CTC and the extension of some sidings on the St. Regis line.

The NP constructed a second main track on the 68 miles between Missoula and Garrison in the early 1900's. When CTC was installed in the early 1950's, this segment was reduced to single track with long sidings. Two main lines were built between Garrison and Logan, but those lines were never set up to be operated as a double track railroad. On the line via Helena, CTC was in service, and the track maintained to a very high standard. It served as the main freight route. However, it had the disadvantage of restricted clearance and some problems of stability in the tunnel at the summit of Mullan Pass over the Continental Divide. On the east

slope, it had heavy curvature of ten degrees and long, high steel trestle bridges.

The line via Butte, the route of the NP's North Coast Limited, was used only for local freight service, except on a detour basis. There were 2.2 per cent grades on both lines on this line over Homestake Pass.

Two routes were built between Logan and the west end of the single track segment over Bozeman Pass. Those lines were used as double track until 1956 when the line with the lower grade of 0.4 per cent was abandoned and CTC was installed on the original main track which had a grade of 0.8 per cent but was nine miles shorter. No other "alternate" main track routes were built on the transcontinental main line of the NP in Montana, Idaho or Washington.* However, in North Dakota and Minnesota, the main line was built as a double track railroad over nearly the entire distance of 272 miles between Buffalo, North Dakota and St. Paul, except for 31 miles of single track in Minnesota between Gregory and Philbrook.

An alternate route to this single track mileage was built via Brainerd, but the longer, alternate route was not used as double track or directional running for through trains except in cases of interruption to service.

Laurel - Casper

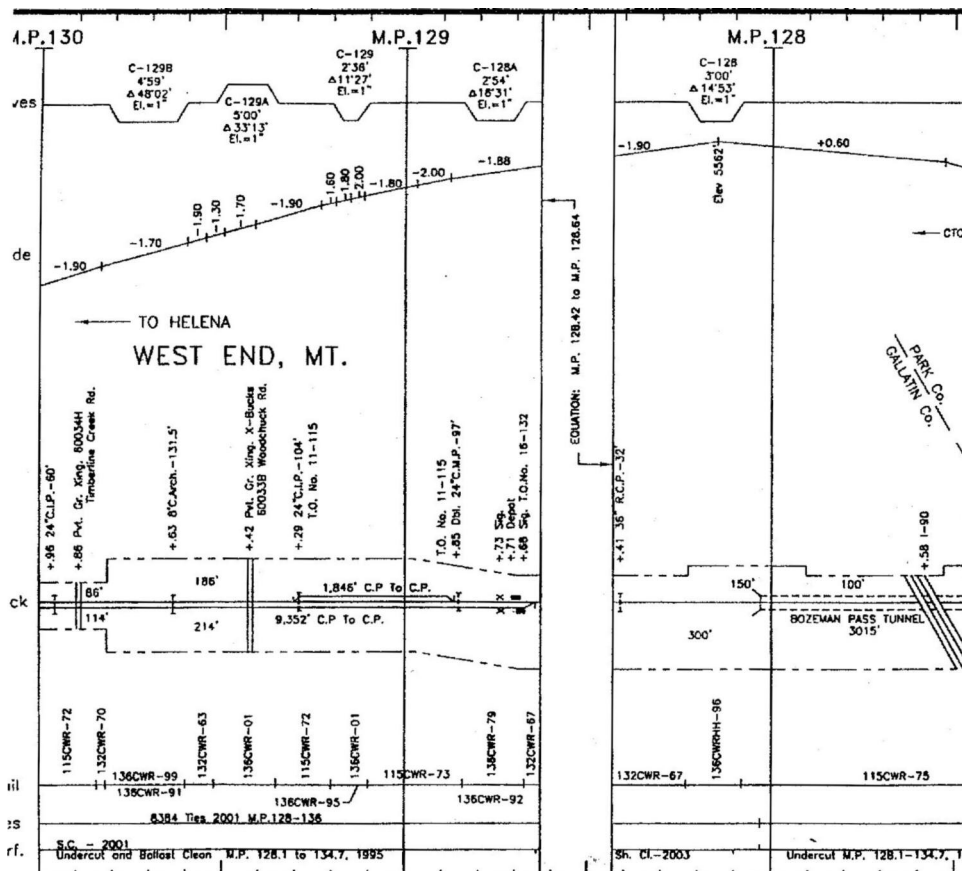
The Laurel-Casper line of 314 miles was built by the former Burlington. It ran through semi-arid land that produced

*An exception was the double track line the NP built on its north-south route between Seattle and Vancouver, Washington.

Bozeman Pass Track Chart

Due to the amount of detail on a track chart we only have space to print the charts covering the high points of each pass. Full track charts of the grades leading up to all passes mentioned in this article are available on the FOBNR website:

www.fobnr.org/expediter/extra/jan2016.



little local business, except for some agricultural products grown or processed in the irrigated areas in the vicinity of Lovell, Wyoming. Another exception was the plant that produced gypsum wallboard on the branch line between Fran- nie and Cody. The 22-mile portion of the line between Laurel and Fromberg had been built by the NP, but was used mainly by the Burlington. The entire line was well-engi- neered, with minimal grades and curvature. It was built in the early 1900's under James J. Hill's direction to connect with the Colorado and Southern Railway at Wendover, to provide a route to Denver and Texas for lumber produced in the Pacific Northwest, and for the export of cotton to Japan and China. Traffic density was at only at a modest level on this line, at least following the end of World War II.

Great Falls – Helena – Butte

The 98-miles between Great Falls and Helena line was the only former GN line that was made part of the Rocky Mountain Division at the time of the 1970 merger. It was built by the GN as its original main line and to reach the mining interests at Butte, where the GN was in competition with the NP and Union Pacific (UP), and several years later, the Milwaukee Road as well, when the Milwaukee built its west coast extension through Butte.

Shortly after the merger all but four miles of the 73 mile segment built by the GN between Helena and Butte was abandoned. It was built on grades of 2.2 per cent. A con- nection was built at Helena so the NP's lines between He- lena, Garrison and Butte could be used as an alternate route.

A new connection also was required at Garrison between the Helena – Garrison segment and the line between Garrison and Butte. Although there was a westward ascending grade of 2.2 per cent on the NP line, this change made it possible to concentrate traffic on the NP lines, and avoid the cost of maintaining the GN line over the Continental Divide.

Most of the business handled by BN on this line was "bridge" traffic between interchange with the UP at Silver Bow and the Canadian Pacific at Sweetgrass, MT, north of Shelby. Southbound (westward by railroad direction), most of the business originated in Canada, consisting of LP gas, lumber and various refined petrochemicals. Northbound, the predominate commodities were equipment and materi- als used in oil drilling.

There also was a regular movement of copper anodes produced at Anaconda to the smelter and refinery the Ana- conda Company operated at Black Eagle, near Great Falls. When Anaconda shut down its operations at Butte, Ana- conda and Black Eagle in the late 1970's that left only a small amount of local business on BN's Great Falls – Helena line. BN ceased operation on that line several years ago due to se- rious washouts, and the lack of on-line business, but has left the track in place.

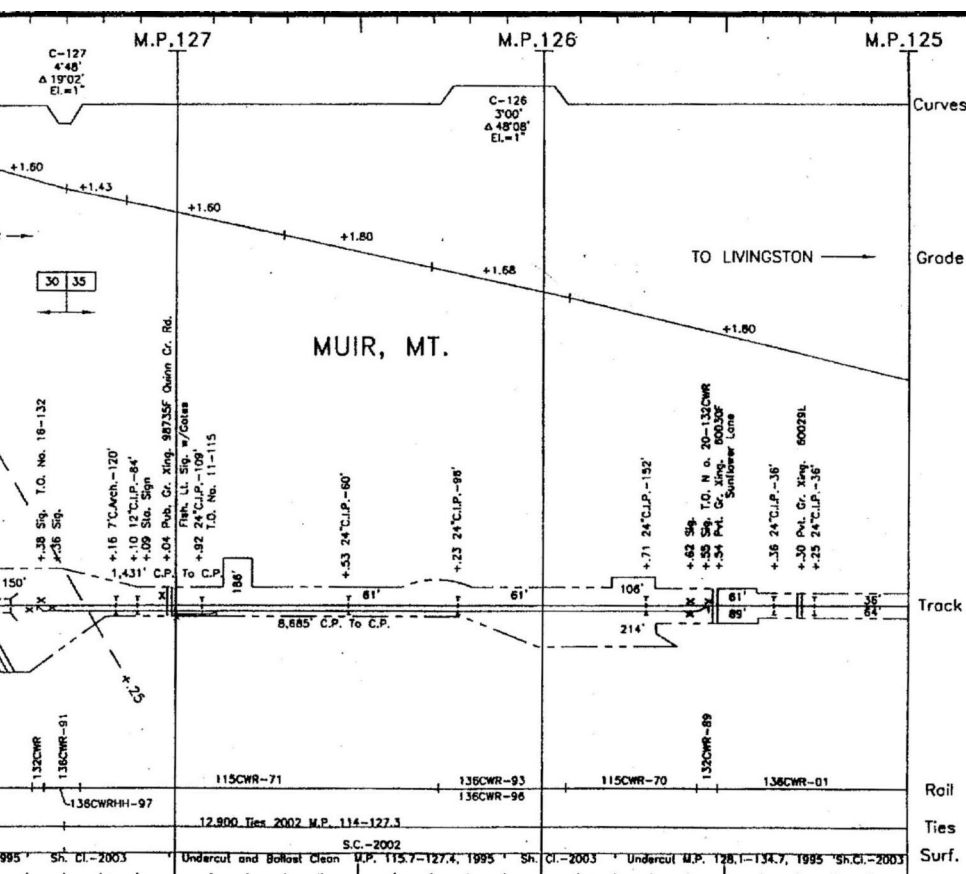
After deregulation, UP and CP worked together to max- imize their haul, by eliminating BN as their bridge carrier. Traffic that had moved on BN was folded in with the run- through service UP and CP were operating through the bor- der crossing at Kingsgate, WA. Hopefully, BN will decide as some point to restore this line to service as a detour route and to use it for overflow when it runs short of capacity on its Mossmain – Great Falls line.

Shortly after the 1970 merger, tri-weekly train was established between Great Falls and Butte. These trains were manned by crews based at Great Falls.

Between Great Falls and Helena, the line consisted mainly of GN 90-lb. rail, although a number of curves were relayed with heavier secondhand rail that had been cropped and welded as ribbon rail.

Wallace Branch

This line of 57 miles was built to serve sev- eral mining areas west of St.Regis. Near its west end, the line was built on a severe grade of four per cent, requiring a switchback. Four GP9 units had to be used on even a small train of 15 or 20 cars. There were extremely heavy snowfalls at high elevations at times, requiring a rotary plow to open the line. Needless to say, operating and maintaining this line was very expensive. Business was steadily declining, enough for us to decide in 1975 to no longer provide service in the winter months. A few



years later, the line was abandoned, with a few miles at the west end turned over to the UP. Sometime in the distant past, heavy washouts occurred toward the east end of the line. The NP was able to obtain operating rights on the Milwaukee's main line for 19 miles, thus avoiding the cost of rebuilding several miles its line.

Train Operation

In their application to the ICC for authority to merge, BN's predecessor companies committed to continuing to provide good service to communities along the parts of the former NP main line that would become a secondary line. To meet this commitment Nos. 85 and 86 were established to operate between Chicago and Missoula. No. 85 consisted mainly of merchandise shipments and empty cars being returned to Montana for lumber and paper loading. No. 86 generally was a full train of about 6,000 tons by the time it reached Laurel. The predominant flow of business has always been eastward from Montana and the Pacific Northwest.

We were charged with operating both trains on schedule, to fulfill the commitments made to those who were concerned about the quality of service they would be given after through trains were routed over the preferred route via Havre and Whitefish.

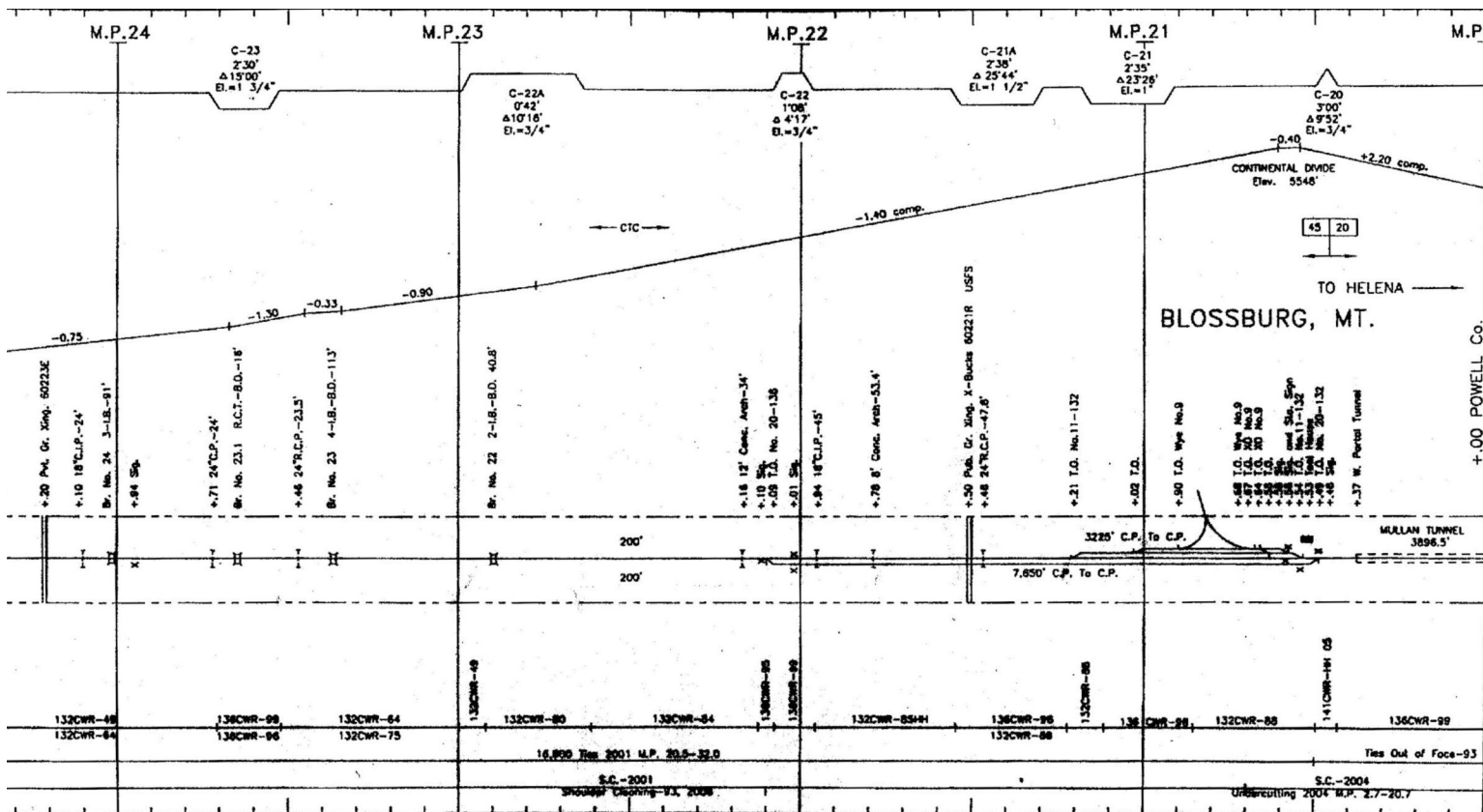
Nos. 77 and 78 were established to provide through service between the Pacific Northwest, Denver and points in Texas. Nos. 75 and 76 operated between Kansas City and the Pacific Northwest via Missoula, Sheridan and Lincoln. A number of employees on the Rocky Mountain Division asserted that BN was running fewer trains after merger on the former NP main line, which contradicted promises that this would not happen, since business to and from Kansas City, Denver and beyond that had been running on the GN via Whitefish and Great Falls would be routed instead on trains running via Missoula.

We set up a joint team of employees and managers to examine the trains sheets maintained by Dispatchers for an agreed upon test period. The results showed almost no difference in the number of "through" train miles. Moving the combined tonnage of both the former NP and GN over the NP had proved to be enough to offset the Chicago - Seattle/Portland business that had been diverted to the preferred route, on the northern corridor through Montana and Idaho.

It turned out that the real concern the employees had was that they no longer had a short, fast merchandise train such as the NP's No. 603 operating on their line. This change had an effect on their pride and in no longer having a train they could move over the road much faster than the much heavier conventional freight trains they were handling.

I was fortunate to have Les Wollschlaeger on my staff as Assistant Superintendent - Transportation. Les had managed the train and yard operation for many years and could

Mullan Pass Track Chart



be trusted to handle operating issues involving safety, service, employee performance and interruptions due to weather, etc., with good judgment and in line with BN policy. Having a right hand man with this capability freed me up to spend time on the roadway and mechanical functions.

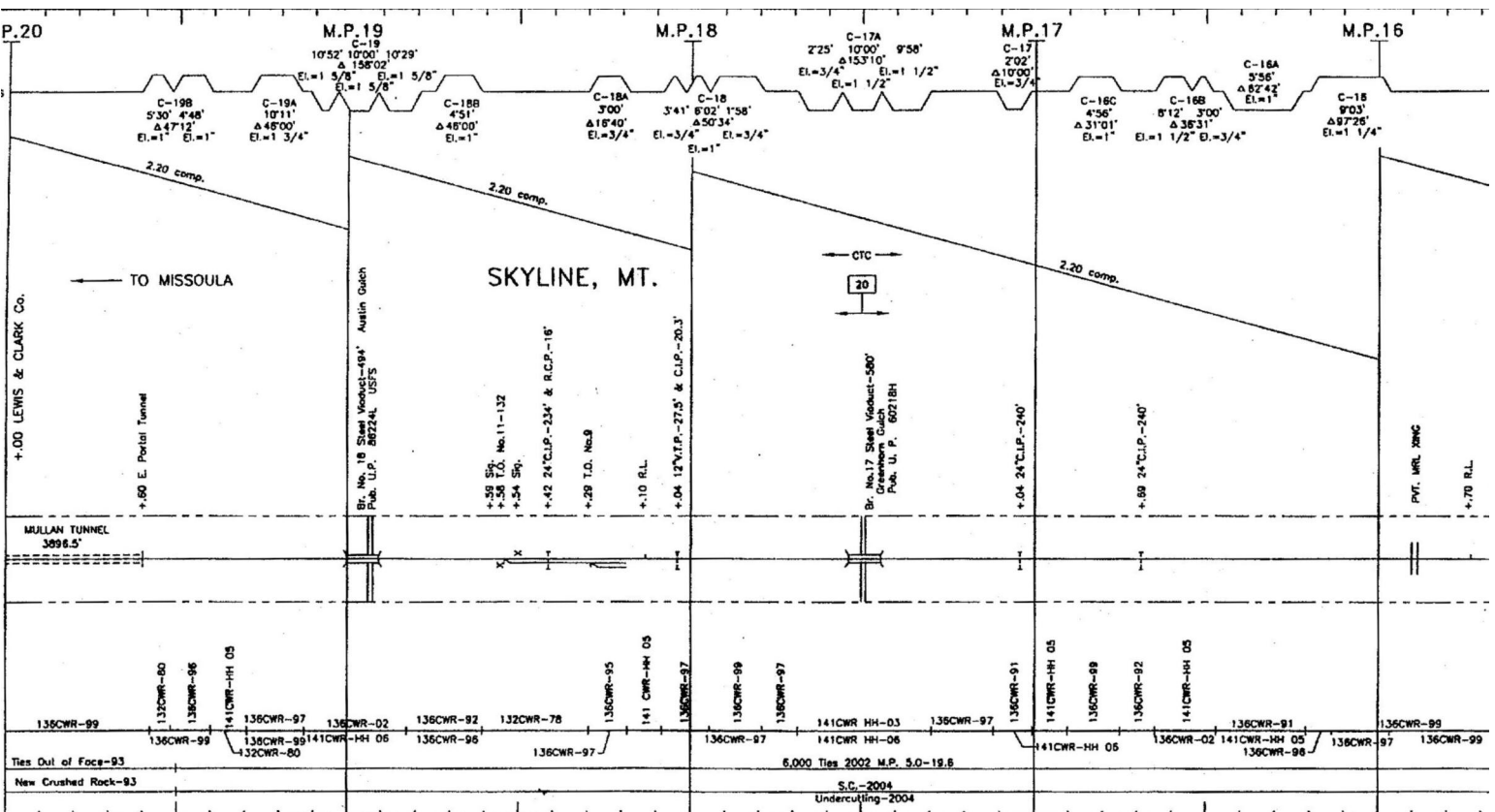
Amtrak

At its inception, Amtrak established a route on the former GN between St. Paul and Spokane, and on the NP between Spokane and Seattle. With pressure from elected representatives in Montana and North Dakota, a second train was soon established to run between Chicago and Seattle, using the former NP between Minneapolis and Spokane, and the GN between Spokane and Seattle. This train was numbered 9 and 10 and called the North Coast Hiawatha, operating three days per week in each direction on a schedule fairly close to that of NP's North Coast Limited. Amtrak provided sleeping cars, a diner and usually one or two vista dome coaches or sleeping cars. The cars had been owned by a variety of U.S. railroads, and together, they did not come even close to the quality, character or class that the North Coast Limited had. It is unfortunate Amtrak did not decide to simply subsidize BN to operate the North Coast Limited with the same cars the NP had used, instead of scattering those high quality cars to the wind, and providing a train with such a "dog's breakfast" of equipment. After about two years, patronage was so low that Nos. 9 and 10 were discontinued.

Maintenance of Way

BN was fortunate the NP had maintained track to a high standard and did not cut back on its expenditures in the short term in order to increase its earnings. NP had an operating ratio in excess of 80, above the level of 79 which was the threshold level for good performance in those years. It had the disadvantages of heavy grades, low density and shorter crew districts compared to the GN. With such low density (gross tons per mile of track) the NP did not have the advantage of the economies of scale to help drive its operating ratio to a lower level. In contrast, the GN had the advantage of somewhat higher average track density, due to the heavy tonnage of iron ore it moved from the Mesabi Range and from the rich grain-producing territory it served. Before 1982, most of the cost for major trackwork such as rail relays, tie renewals and ballast improvement was charged to operating expense, and not capitalized, under the ICC's accounting rules. Under that system, earnings would reflect the amount currently being spent for track, bridge and equipment maintenance.

Each year, the Rocky Mountain Division had a program to replace several miles of curve worn rail in the areas of heaviest tonnage, mainly over Mullan Pass, and on curves on the river grade line between Missoula and Paradise. Also, we were authorized to carry out a program of tie renewals and surface correction large enough to maintain the entire main line between Laurel and Sandpoint at the level of quality the NP had maintained for many years. Overall, the quality of track, bridges and signals was as good as any-



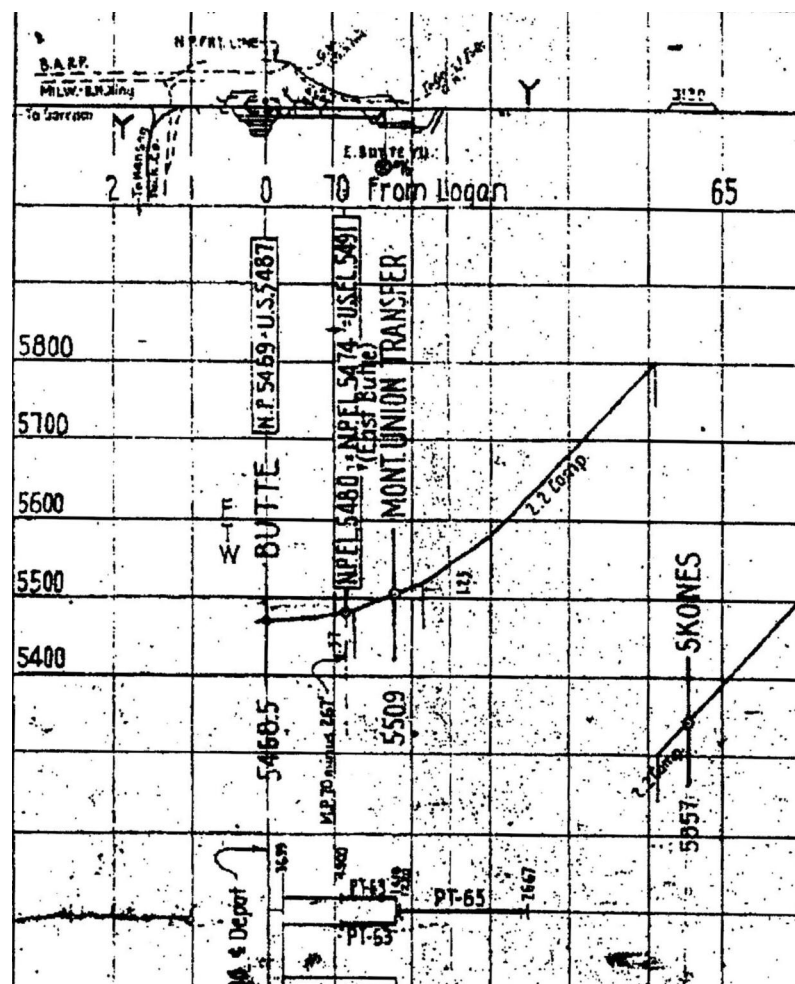
The secondary line of the former CB&Q between Fromberg (22 miles south of Laurel) and Casper consisted mainly of 90-lb. conventional bolted rail. There was a short section of about 1.5 miles of 129-lb. rail that had been laid in a line relocation and construction of a tunnel of 7,131 feet when the Boysen Dam was built on the Wind River in the late 1940's. The portion of this line between Laurel and Fromberg had been built by the NP. With fairly light tonnage and an arid climate, the entire line was in satisfactory condition for the amount of tonnage it was handling. However, with more of the much heavier SD40-2 locomotives and 100-ton capacity cars run on this line after the merger, it was time to begin replacing the old 90-lb. rail. Each year, we were allocated enough heavy secondhand welded rail for relay of several curves as a start of a rail replacement program.

Overall, we were authorized enough money to maintain branch lines to a level satisfactory for the amount of tonnage being handled and in line with the anticipated life of these branches. We were very pleased to get the authority late in 1974 to relay 18 miles of 56-lb. rail with 90-lb. GN welded rail on the branch line between Whitehall and Alder. The tonnage of talc originated on that line had been increasing quite dramatically, which raised the outlook for this branch from questionable to favorable for a good many years. Before the rail relay was completed, the loading of talc had to be restricted to 50-ton capacity box cars. With the heavier rail, 100-ton capacity covered hopper cars could be used, and train speed raised from 10 MPH to 25 MPH.

The significance of pointing out that this 90-lb. rail was a GN rail section, and not the more common 90-lb. RE rail used by the NP and most other railroads was that more

Maintenance of Equipment

The Rocky Mountain Division had responsibility for the operation of a large shop in Livingston for running maintenance of locomotives. We were assigned about 300 road units at that time. Adjacent to the maintenance shop was a large "back shop" that carried out overhauls and repairs on locomotives damaged in railroad accidents and in collisions with highway vehicles at grade crossings. The back shop reported directly to system mechanical office at headquarters in St. Paul. Running maintenance consisted mainly of periodic inspections and repair of on-line failures or problems reported in a locomotive's electrical and mechanical systems. In the 1970's, the work load at Livingston was increasing due to the large number of new locomotive units



Homestake Pass Track Chart



BN was acquiring to handle the rapid growth in coal moving out of the Powder River Basin.

Until the new shops at Northtown (Minneapolis) and Alliance were completed in 1975, the existing running maintenance shops at Livingston, Havre and Lincoln had to absorb the additional work load. Employment was on the increase in Livingston, which was very pleasing to the community and the elected representatives from Montana who had feared the shop would be closed soon after the merger was consummated. The running maintenance and back shops at Livingston remained open until 1986.

In 1975, Harold Bell, Assistant Superintendent – Mechanical for the division, was transferred to the shop at Havre. Bell was replaced by Bill Craig, who had been promoted in recent years from Locomotive Engineer to Road Foreman of Engines. Bill had also developed the skills needed for managing the repair of locomotives and cars, in addition to operating a train, as well as the leadership skills needed to oversee the work of a large, skilled work force assigned to a major shop.

The People of the Division

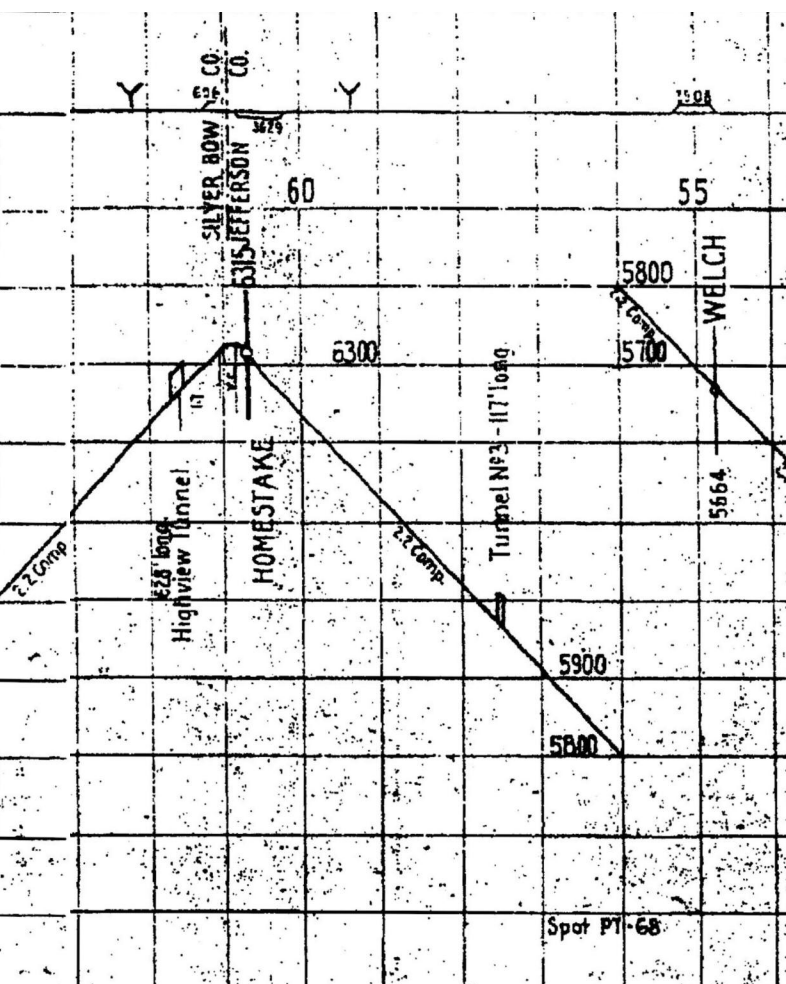
Even though the division was a contender for a top position in the safety standing every year, its work force devel-

oped a largely undeserved reputation for intransigence and poor morale. This started with the organized approach some employees had formed in opposition to the 1970 merger. The arguments made by what became the famous Livingston Anti-Merger Committee were heard by the ICC and the U.S. Supreme Court, and were recognized in the Court's decision to allow the merger to be accomplished. The Committee's arguments against the merger were summarized in detail in reports prepared by the ICC following the hearings it conducted, and in the analysis that led to its decision in 1966 to deny the application to merge, and later, to approve it after various conditions were met by the applicants. All of this opposition voiced by this group of employees gave it a great deal of notoriety.

Even after the merger a few employees continued to openly berate the actions management was taking to implement the merger. I found that most employees had long tired of this ranting and general negativism, but there were many among the news media and the politicians who assumed the pronouncements of this small vocal group of employees reflected the general mood and morale of the BN's work force. As indicated by their safety record, employees across the division knew how to work safely and apply good judgment in operating and maintaining a railroad on lines with the grades as heavy as anywhere on BN, and to work through the ravages of winter weather. Overall, we had a strong cadre of loyal, highly professional employees, even though some of them expressed things about the merger and changes being made in work rules and conditions they didn't always like. Most of their complaints centered around the decision to designate much of the former GN line across Montana and North Dakota as the preferred route for long-haul traffic, and with that, the loss of the former NP's priority merchandise train.

As a group, they often showed the Montana frontier spirit of independence and self-reliance that was typical of many outdoorsmen. They would sometimes scoff at executives at the corporate level of the large business enterprises in mining, forestry and agriculture that had big operations in Montana. Nor did they relish in the expanding control the federal government seemed to be putting over their lives. These views were a reflection of the general character or spirit of many people of that area, rather than one of defiance or bad morale.

The reaction of employees at Missoula to the annual fund drive of the United Way gave a clear indication that they had a heart of gold beneath the bluster and grumble of some of the self-appointed spokespersons of that time. The Chairman of the fund drive for the city of Missoula in 1974, a retired U.S. Army officer, admonished us quite severely, saying that we had the highest paid work force in the city, but the lowest contributions and rate of participation in previous fund drives. There were some employees who viewed the United Way as a welfare agency for society's laggards.



Continuing opposition to the merger lost most of its support when the city of Livingston joined with BN in put-

The perceived negativism really came to a head in the mid-1980's when BN decided to sell nearly all of the lines of the Rocky Mountain Division to a non railroad entity, following BN's failure to get neither the local union lodges nor the system union officers to recognize the need to reduce the size of train crews and to change the system of compensation and work rules that had become far too costly to maintain in the competitive environment BN said it faced. This opposition to change was not limited to the people of the former NP or the Rocky Mountain Division. There was plenty of opposition on the part of employees across BN's entire northern tier between the Twin Cities and the Pacific Northwest. However, employees elsewhere on the BN system were somewhat more amenable to change and agreed to reduce the number of employees on train crews a few years before the issue was finally resolved on the northern

Telling the full story of what led to BN's decision to sell or lease nearly all lines of its Rocky Mountain Division to

[illegible]

entrepreneur in Missoula who set up Montana Rail Link (MRL) would require several pages of text, enough for a separate story. Even though the MRL is a successful railroad enterprise, BN's decision to sell and lease much of a primary corridor is likely to remain controversial for a long time to come.

Any experienced, knowledgeable railroad person making an inspection of MRL's track, bridges, yards, cars, locomotives and support facilities would find the property and equipment are well maintained. Investments have been made in new and improved technology, and its operations are safe and reasonably efficient. Definitely, the property conveyed to a new owner in 1987 has not been allowed to deteriorate by failing to provide the funds needed to maintain the roadway and equipment to high standards. However, we must hope that in some way, BNSF will find it possible to regain control of these lines and fold them back into its network of primary corridors. If the volume of international trade moving through ports of the north Pacific coast continues to grow, it may become necessary for BNSF to provide some of the funding for major capital investments needed to expand the capacity of MRL's main line across southern Montana.

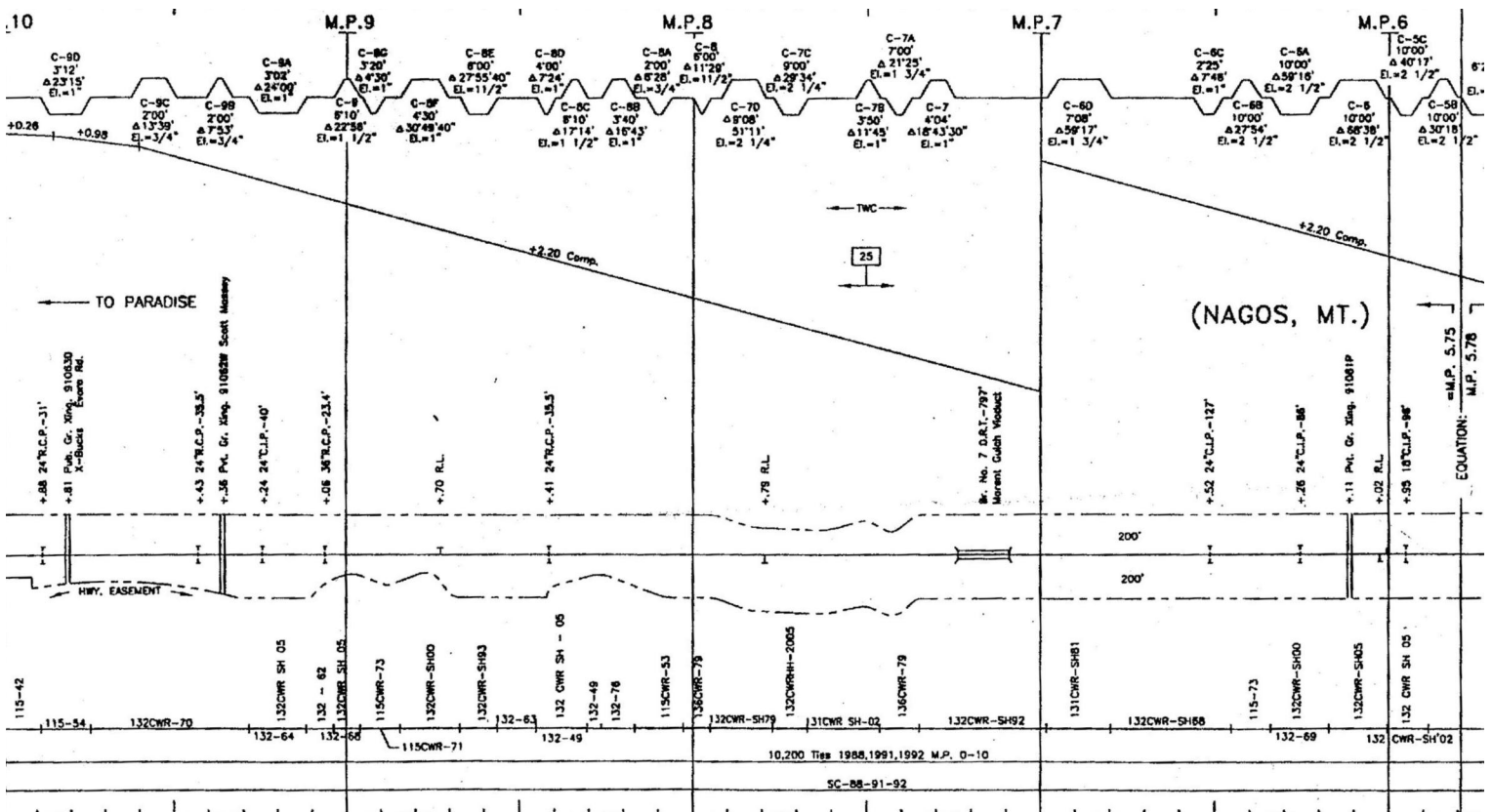
"Moving On"

In October, 1975, rumors started that I was to be transferred to the Lincoln Division (later named the Nebraska Division) as Superintendent. Usually rumors are not totally unfounded, and there is something behind them that will

come to pass. Once again, that turned out to be the case. Although it was hard to leave Missoula, which is typed as one of "the world's best places," it was great to be going to "the big leagues," which the Lincoln Division was in, as the hub of five main line subdivisions. It was in the center of large trackwork projects underway to upgrade and expand the capacity of the railroad to handle the projected tonnages of coal to be mined in the Powder River Basin.

Getting this assignment showed that I was meeting the standards required of a Division Superintendent in the year and a half I served at Missoula. I was glad that once again I would be reporting to Wayne Arntzen who had recently been transferred from the region Assistant Vice-President Operations at Billings to the same position on the Denver Region.

I was fortunate to have had the chance to learn how to manage the maintenance of way and mechanical functions on the Rocky Mountain Division. Accomplishing that might have been more difficult to do if I had first been assigned to a division where the transportation function was much more challenging and complex. I was grateful to BN and its senior leaders for the opportunity to work with the fine group of people on the Rocky Mountain Division, one of the "red apple" jobs on the railroad. Our first child had been born in Missoula which has given us fond memories of a special time in our lives. We hoped we might have another opportunity to live and work in one of the western states some time down the road. That chance came five years later when I was appointed Region Vice President - General Manager for the Seattle Region.



Model Review

Arnold N Scale U25Cs as BN5627 and BN5635

by Kent Charles

During the dawn of the Diesel Age, General Electric (GE) partnered with American Locomotive Company (ALCO) to build many locomotives. The demise of its partnership with ALCO in the 1950s led to GE's first effort to build locomotives in house. The highly successful U25B produced for domestic use resulted. Manufactured between 1959 and 1966, the U25B was equipped with GE's 4-cycle model FDL16 prime mover producing 2,500 horsepower and two 2-axle trucks, selling 478 units. Building on its success with the 4-axle market GE introduced the U25C with C-C (3-axle) trucks using the same prime mover. Class 1 railroads were slow to adopt the slightly larger engine design with only 113 sold between 1963 and 1965.

All of Burlington Northern's U25C's were acquired from predecessor railroads during the 1970 merger. CB&Q supplied 12 units numbered BN 5630-5641 (CB&Q 550-561). These 12 units were built between August and October 1965 and are classified as Phase IIIb car bodies. For those who are not locomotive detail enthusiasts, the phases refer to sheet metal and accessory appliance design changes that occur over time during a multi-year production run of the same model.* Northern Pacific supplied 30 units numbered

BN 5600-5629 (NP 2500-2529). The NP units were delivered in two groups: NP 2500-2514 between May and June 1964 and NP 2515-2529 between June 1964 and July 1965. The first group are classified as Phase II bodies and the second are Phase IIIb bodies. BN units were initially renumbered with white numbers and small BN letters below the cab on the original owner paint scheme. A good example of this numbering can be found on the January 2015 **FOBNR** Calendar photo. One unit, BN 5631 was wrecked at Zurich, MT on December 8, 1978. The CB&Q heritage units were the first to leave BN's roster, being sold for scrap in August, 1980. The NP heritage units left the BN roster for scrap between January and April 1981.

In 2015 HORNBY America reentered the American N Scale model railroad market under the ARNOLD brand with a highly detailed model of the General Electric U25C. The model shell is made of injection molded plastic using a state of the art mold that reproduces body details appropriate for a U25C with a Phase IIIb car body. This phase shell is a good match for Burlington Northern modelers as it represents the majority of BN engines. Arnold has produced the model in two road numbers for five railroads: Northern Pacific (NP)



Prototype phase IIIb U25Cs 5623 (below) - an ex-NP unit - location, date and photographer unknown, and 5633 photographed in July 1975 (left) - an ex-CB&Q unit - location and photographer unknown.

U25C models (top of next page) and the insides of one (right) showing details of the frame, motor and circuit board.



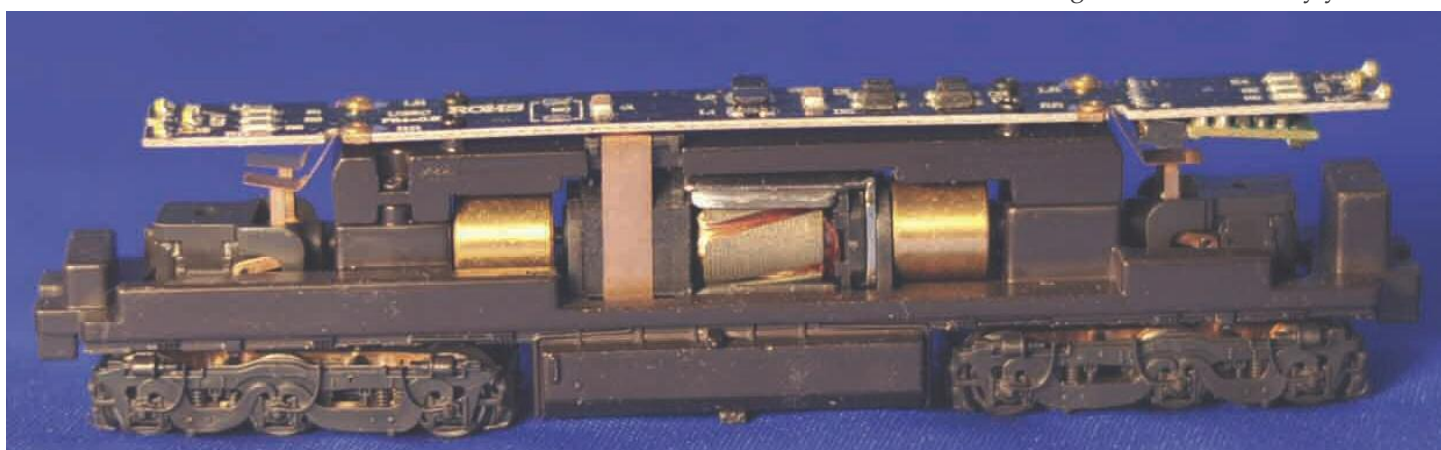


2520/2525 - Black & Gold; Chicago Burlington & Quincy (CB&Q) 553/561 Chinese Red/Gray/White; Burlington Northern (BN) 5627/5635 - Green/Black/White; Conrail (CR) 6510/6519 - Blue/White; and Louisville & Nashville (L&N) 1500/1511 - Gray/Yellow. The availability of not only factory painted BN models, but accurate CB&Q and NP paint allows the early merger modeler an opportunity to mix and match paint schemes. The original owner paint scheme lasted for several years after the BN merger. Under the shell is a heavy die-cast metal chassis that includes a solid metal fuel tank as part of the frame. The trucks are supported by the frame and connected by drive shafts that are free moving to the 5-pole-skewed armature motor with two brass flywheels. A separate "cap" is screwed to the top of the frame and holds the motor and drive shafts in place while providing a mounting for the circuit board with built in lights and NMRA 6-pin decoder socket with dummy plug. A unique feature of this circuit board is that the model number boards are illuminated whenever the engine is on live track even if the headlight is off. Road specific detailing such as horns, antennas and roof piping are factory installed. Additional detail parts such as cab sunshades are in the box for the modeler to apply.

My two U25C examples were factory numbered BN 5627 and BN 5635. Unlike models by most manufactures, these two were factory produced with differing details. BN 5627 represents a former NP unit with a single red Gyalite on the nose, cab roof mounted horn and additional NP specific roof mounted detail. BN 5635 represents a former CB&Q unit with dual nose lights, one white Gyalite and one red light (the white lens, when turned on, sweeps back and forth while the Red lens is used as an "emergency" warning light.) Locomotive horns were mounted on the long hood and cab shades are included for application by the modeler. Note that the Gyalites on both engines are not factory lit. Painting and printing was sharp and legible. Number boards had factory printed numbers. One minor problem on my samples were the handrails, they were easily displaced when handling the model. I chose to spot glue them in place with a small application of ACC to the mounting points. Micro-Trains® compatible couplers are factory installed with screws and must be removed to detach the shell. A two-sided service sheet with exploded diagrams and a list of spare part numbers is included with each engine. The mechanism is smooth and quiet in operation with top speed close to prototype. These engines offer the N scale

*For a complete description of the U25C phases see the Diesel Detailer Forum at: <http://dieseldetailer.proboards.com/thread/15490/guide-u25c>

modeler a never before produced engine model with a great choice of paint schemes that can be mixed and matched for anyone who models Burlington Northern's early years.



Grain train heading south near Conrad, Montana
on November 27, 2015. Photo by Justin Franz.

