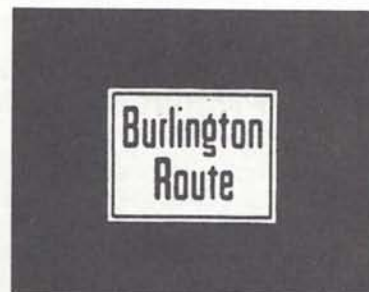


Historical Background Information

*Major
Burlington Northern
Predecessor
Companies*





Trademarks of BN's Predecessors Are Prominent in Western History

Burlington Northern's bold corporate symbol and bright Cascade Green are becoming increasingly familiar across the nation as they gradually replace the symbols and colors of the predecessor lines on more than 135,000 locomotives and cars and on countless other items of equipment, buildings and facilities bearing the company's identification.

Meanwhile, the disappearing trademarks of the Great Northern, Northern Pacific, Burlington and Spokane, Portland and Seattle railways should enjoy a prominent niche in transportation history, befitting their long and intimate association with the settlement and growth of the American West.

Burlington's Symbol Is Oldest

Probably one of the most familiar and unchanging corporate trademarks on the American scene was the simple rectangle emblazoned "Burlington Route".

While the block itself appeared in advertising as early as 1880, carrying various phrases and slogans, it did not become standardized as a trademark until May 30, 1884, when the Western Executive Committee of the Board of Directors adopted a resolution outlining its style and wording.

That first official trademark carried the legend, "Burlington Route", in a distinctive letter styling that remained constant through the years. It also included the initials of the appropriate proprietary line, such as CB&QRR (for Chicago, Burlington & Quincy) and B&MRR (for Burlington and Missouri River).

The directors further specified that the letters would be white on a black block, encompassed by a narrow white line, with a black line outside the white.

Initials of proprietary lines gradually were eliminated from letterheads and advertising, and in 1889 they were dropped from freight cars.

Proportions weren't defined for the original trademark, with the result that it showed up in a variety of shapes and sizes. This was remedied in 1940 when standard proportions (58 units wide by 46 units high) were adopted.

The use of color—usually red—in the Burlington symbol also was standardized. This became an addition to the basic trademark: a



color border six units wide, surrounded by a black border one unit wide. Outside measurements of a two-color trademark were 70 units wide by 60 units high. The same proportions and style were sometimes used in one-color printing, substituting white or a shade of gray for the color border.

"Rocky" the Goat Symbolized GN

A Rocky Mountain goat— not really a goat at all but a member of the antelope family— was Great Northern's unique trademark feature for nearly 50 years. So great was his popularity as "Rocky", GN's singing spokesman on radio and TV, that young fans by the thousands wrote for his "autographed" portrait.

The first Great Northern trademark, adopted in 1890, could hardly have evoked such a response. It was the unadorned legend, "Great Northern Railway Line". The "Line" was dropped in 1894, and "Great Northern Railway" began appearing as three lines of ascending block lettering, contained in a rectangle.

In 1912, the year GN opened its hotels and chalets in Glacier National Park in Montana, the late Louis W. Hill Sr., then president of the railway, read an advertisement in which the words, "see America first", caught his fancy. With a keen sense of promotion, he incorporated the phrase in GN's trademark. It appeared in quotation marks above the company name, with "National Park Route" below. In 1914 the lower line in the rectangle was changed to read "Glacier National Park".





It wasn't until 1921 that the Rocky Mountain goat, who makes his home on the perpendicular peaks of Glacier Park, was adopted as the railway's symbol and

the trademark changed from a rectangle to a circle. The original drawing showed the goat in a three-quarter front pose, facing the viewer. While there were many variations of the trademark in GN's advertising, the most common form on equipment and facilities pictured the goat with the name "Great Northern" in an encircling band.



The next major evolutionary change in the Gn trademark came in 1936, when the goat was redrawn in profile, or silhouette, with "Great Northern Railway"

appearing in the surrounding band. An outer band of black subsequently was strengthened, but beyond this the trademark remained unchanged for 31 years.

In 1967, just three years before the Burlington Northern merger, Great Northern adopted a comprehensive corporate identification program recommended by the internationally-known design firm of Lippincott & Marquies. A basic decision was to retain the goat symbol, but in a more contemporary design. The "new Rocky" appeared younger and more vigorous. The name "Great Northern", in a distinctively designed logotype, appeared separate from but in a precisely defined relationship to the circular symbol.

A new corporate color, Big Sky Blue, also was introduced, and standards for every conceivable use of the trademark and color were adopted by Great Northern. While the program was shortlived, it did provide valuable experience to the new company in shaping an identification program of its own.

NP's Monad Oriental in Origin

The two comma-shaped figures which combine to form the Northern Pacific's famed Monad are more than just an attractive design. They represent an Oriental symbol more than 1,000 years old—and thereby hangs a story.

At the Chicago World's Fair of 1893, E. H. McHenry, then chief engineer of the Northern Pacific, chanced to visit the Korean exhibit. Seeing the Korean flag, featuring the Monad, he was impressed by its simple but striking design. The NP was searching for a suitable trademark at the time, and Mr. McHenry realized almost immediately that this symbol could be adapted quite readily.

Returning to St. Paul, he submitted his idea to Charles Fee, then general passenger agent, and together they worked out the emblem which became familiar to generations of Americans.

Curious about the origin of the symbol, Mr. McHenry undertook an investigation of its complex history, which began in ancient China. He learned that the more modern form of the Monad was introduced in the 11th century by a Chinese philosopher, Chow Lien Ki, and used to illustrate a 4,000-year-old philosophy.

The philosophy, greatly oversimplified, involved two basic principles, called the Yang and the Yin, represented by the opposing halves of the symbol. Their primitive meanings were Yang-Light and Yin-Darkness. Philosophically, they stood for

the positive and the negative. Later interpretations assigned them the meanings of force and matter, motion and rest Heaven and earth, male and female. In time, the Monad became a symbol of good luck.



Although officially adopted as Northern Pacific's trademark in 1893, the Monad—with "Northern Pacific" in an encircling band—was not formally registered until March 2, 1926.

For many years NP's trademark included an appendage with the legend, "Yellowstone Park Line". This was dropped in 1956, and at the same time "Northern Pacific Railway" appeared in the encircling band. With these exceptions, the trademark remained virtually unchanged for more than 75 years. In color versions, "Yang" was red and "Yin" was black.

The Northern Pacific continued to renew registration of its trademark every 20 years prior to merger, and the current patent does not expire until 1986.

Oval Trademark Identified SP&S

The familiar oval trademark of the Spokane, Portland and Seattle Railway is obscure in origin and without "official" history. However, a chronology can be established from old passenger timetables, which reflect the changes which took place over the 60 years this symbol identified the SP&S.



First use of a trademark by the SP&S was on Timetable No. 13, dated March 25, 1910—two

years after the driving of the last spike on the main line skirting the north bank of the Columbia River.

In fact, the SP&S was so commonly referred to as "The North Bank Road" that this became the featured name in that first oval, with the lettering reversed on a black background. Below, in an encircling band, was "Spokane Portland & Seattle Ry.", in much smaller lettering. Above, in the same style, was the legend, "Columbia River Scenic Route".



Use of this symbol on timetables continued through February 9, 1913. At that time "Spokane Portland &

Seattle" became the featured name in the oval. "The North Bank Road" was switched to the top of the surrounding band, and "Columbia River Scenic Route" was dropped to the bottom.

The next change came with the July 1, 1947 timetable, when everything except the name of the company was eliminated from the trademark—and even that was changed. It now became "Spokane Portland and Seattle Ry", with the ampersand (&) eliminated and the "Ry" added.

With minor variations, this trademark styling survived until merger. Briefly, in 1948 and 1949, the trademark appeared with a surrounding band of red, outlined in white. A color version, in which red was substituted for the black background and outer band, was adopted in 1950 and also continued until merger.



Burlington Northern's Predecessors **BURLINGTON LINES: OLDEST, LARGEST OF THE PARTNERS**

From its humble start, it is unlikely that any of the Aurora, Illinois businessmen founding the Aurora Branch Railroad in 1849 could have envisioned their fledgling corporation evolving into Burlington Lines — largest of Burlington Northern's constituent companies with nearly 10,000 miles of track extending from the Great Lakes to the Rocky Mountains and from Montana to the Gulf of Mexico.

The Aurora Branch was laid with secondhand strap iron spiked to 12 miles of wooden rails, obtained from the Buffalo & Niagara Falls Railroad at a bargain price after the New York legislature had outlawed their use.

Aurora Branch Sees First Service

On September 2, 1850, the first train chugged its uncertain way over six miles of newly-built line from Batavia to Turner Junction (now West Chicago), switching to the tracks of the Galena and Chicago Union Railroad which had been completed to Chicago the year before. As neither secondhand cars nor locomotive had arrived from the East, the trip was made with equipment borrowed from the Galena line. Burlington thus became the second railroad to serve Chicago.

Line Bought by Boston Investors

Progress over the next decade was rapid — aided largely by a group of Boston investors who bought the line in 1852.

By 1864, the railroad had 400 miles of track — all in Illinois — and adopted the name Chicago, Burlington & Quincy Railroad Co., which properly described its trackage stretching to Burlington, Iowa and Quincy, Illinois on the Mississippi River. The name also had staying power, for it lasted 106 years until the Burlington Northern merger in 1970.

The Burlington, as it came to be known, completed its own line from Aurora to Chicago in 1864, and the following year had the distinction of operating the first train into Chicago's newly-opened Union Stock yards.

C. E. Perkins Forges CB&Q System

Burlington's rapid expansion after the Civil War was based on sound financial management, dominated by John Murray Forbes of Boston, who in turn was assisted by Charles E. Perkins. Perkins was a powerful administrator who eventually forged a system out of previously loosely-held affiliates; virtually tripling Burlington's size during his presidency from 1881 to 1901.



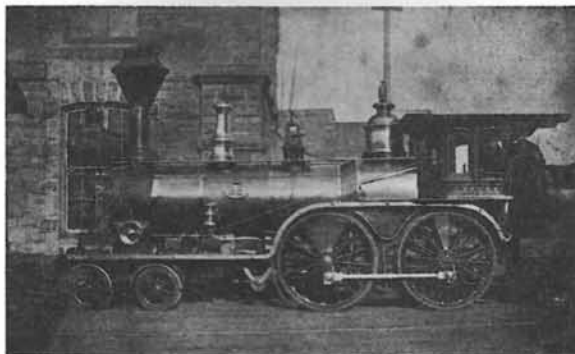
John M. Forbes



Charles E. Perkins

In an amalgamation of 204 railroads, two were particularly outstanding: The Hannibal and St. Joseph Railroad Co. and the Burlington and Missouri River Railroad Co.

Promoted by important citizens at each end of the route — including Mark Twain's father, John M. Clemens — Hannibal & St. Joseph's construction began in 1852 and was completed in 1859. The railroad brought mail across Missouri to connect with the Pony Express, introduced the first railroad car equipped for sorting U.S. Mail enroute, in 1862, and during the Civil War was constantly harrassed by Confederate raiders. Afterward, it became an occasional target of Jesse James and other train robbers.



Locomotives like this American type wood-burner powered CB&Q trains in Civil War days. Personal attention lavished on No. 29, built in 1855, is evident in its highly-polished brasswork.

The H&St. J also sparked the beginning of Kansas City as a rail center and gateway to the Southwest. In 1869, under the direction of engineer Octave Chanute, the company completed the first bridge over the Missouri River. The B&MR was incorporated in 1852 to build across the state of Iowa. Operations

began over the first few miles of track on New Year's Day, 1856. The road reached Ottumwa by 1857, and was completed to the Missouri River in November 1869. From the beginning, the line had financial help from Forbes and his Boston-New York group of investors because it provided a natural westward extension of the rapidly-building CB&Q which in turn was a feeder for the Forbes-owned Michigan Central.

In 1868 the Burlington completed bridges over the Mississippi both at Burlington and Quincy, giving the railroad through connections with the B&MR and H&ST.J.



Bird's-eye view of Burlington, Iowa in the 1870's shows extensive CB&Q shops and yards located there. New railroad span across the Mississippi River can be seen on distant horizon.

Close ties between the Burlington and the H&ST. J were temporarily severed in 1871, when Jay Gould and his New York allies secured control of the Missouri line. For the next dozen years, Gould used the line as a pawn in bitter rate wars and shifting alliances. Traffic interchanges with the Burlington remained so important, however, that by 1883 Perkins was able to reacquire the line and it became an integral part of the Burlington system.

While the B&MR was still building westward, plans were made for an extension into Nebraska. A separate company, Burlington & Missouri River Rail Road in Nebraska, was formed in 1869. During the summer of 1870 it reached Lincoln, newly-designated capital of Nebraska. A junction with the Union Pacific at Kearney was achieved in 1872.

Line Completed to Denver in 1882

By the time the Missouri River bridge was opened at Plattsmouth in 1880, the B&MR in Nebraska had filled its territory with numerous branches and pushed into western Nebraska. The value to the CB&Q of this westernmost feeder was now established and, in 1880, the Nebraska line was purchased outright. In 1882 the line was completed to Denver, providing the Mile High City with its first direct rail route to Chicago over a single railroad.

As Burlington rails were pushing westward, other segments were built in the Midwest, notably links to St. Louis and Rock Island. The idea of building north to the Twin Cities also was gaining momentum.

Northern Pacific had reached Puget Sound, James J. Hill had connected his forerunner of

the Great Northern with the Canadian Pacific, and it became apparent that extension north-westward would put Burlington in a position to handle grain and lumber south, while moving coal and manufactured products to the north.

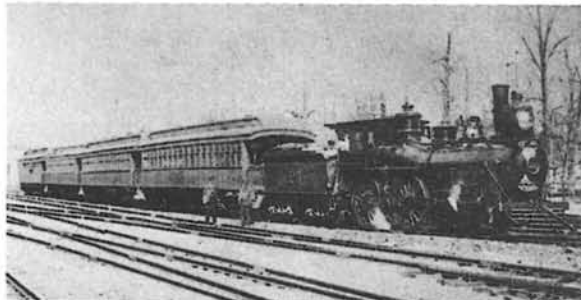
In 1885, lines were extended from Oregon, Illinois (on the Chicago & Iowa Railroad) and north from Fulton (on the route from St. Louis) to Savanna, Illinois; then northward along the Mississippi River, reaching St. Paul in 1886.

More railroad building eventually gave the Burlington a main line from St. Louis and Kansas City through St. Joseph and Lincoln to Billings, Montana. During this same period, the Burlington either built or acquired a network of branchlines over the rich agricultural regions of northern Illinois, southern Iowa, northern Missouri and southeastern Nebraska.

Agriculture Aggressively Promoted

Throughout the years, products from farms and ranches were essential to the CB&Q, and the company became known as a "Granger Road." Burlington representatives worked closely with farmers and ranchers, and as early as 1854 the railroad advised prospective settlers on what crops could be successfully raised in Missouri. Alfalfa was introduced by the railroad as a commercial crop in Nebraska in 1875. Crop and stock improvement, irrigation and soil conservation were aggressively promoted. Through seed and soil exhibits, poultry specials and livestock trains, the Burlington helped bring the most advanced agriscience directly to the farmer. Burlington often would employ farmers at shop work during winter months until they were able to establish their farms and attend them on a full-time basis.

Congress granted the Burlington tracts of land in Missouri, Iowa and Nebraska, to promote expansion and settlement. To attract settlers, the railroad employed as many as 250 agents in the eastern U.S. and in offices in England, Scotland, Sweden and Germany. From 1870 to 1880, Burlington sold over two million acres of land to some 20,000 people.



Chicago commuter service on the Burlington dates back to the 1860's. This suburban train was pictured about 1880 as it was ready to leave Downers Grove yard.

While filling out its territory, the railroad also was improving technologically with heavier rail, more powerful locomotives and larger cars. In 1886 and 1887, George Westinghouse conducted air brake tests on the grade at West Burlington, Iowa, inventing the triple valve. His device perfected the air brake and brought it into universal use.

Burlington built its first timber preservation plant at Edgemont, South Dakota in 1899 and began a research laboratory at Aurora, Illinois in 1900.

The turn of the century witnessed far reaching changes in management of the Burlington. The death of Forbes in 1898 symbolized the end of an era. For 47 years he had guided the company's finances, serving as a director for the last 41 years of his life. At the end of February 1901, Perkins resigned as president, although continuing as a director.

Hill Sees Value of Tie With CB&Q

Meanwhile, in St. Paul, James J. Hill was shifting strategy. Frustrated in his attempt to consolidate the Great Northern and Northern Pacific in 1896, he now sought a common connection to the East. In 1901, the main lines of the two Northerns terminated at the Twin Cities. Chicago, however, not Minneapolis or St. Paul, was the railroad capital of the nation. Hill observed: "The best traffic of the Great Northern and Northern Pacific is the cotton and provisions west and the lumber and timber eastbound . . . The great provisions centers are Kansas City, St. Joseph, Omaha, Chicago and St. Louis, none of which are reached directly by the Great Northern or Northern Pacific. The Burlington lets us into all these districts and commercial centers over better lines and with better terminals than any other road."

GN/NP Jointly Purchase Burlington

In 1901, the GN and NP jointly purchased 97.2 per cent of the CB&Q's stock, paying \$200 per share.

Hill, as always, was seeking balanced traffic for his system and believed coal, minerals, livestock and agricultural produce from Texas and Colorado could be exchanged for imports from the Orient and timber and other products available from the Pacific Northwest. The Colorado and Southern and Fort Worth and Denver lines provided routes from Cheyenne, Wyoming and Denver south to Fort Worth, Dallas and the port cities of Houston and Galveston. With a link from Cheyenne to Billings, Montana, Hill would have a tidewater to tidewater line from Puget Sound to the Gulf of Mexico and a diagonal transcontinental line through America.

Acquisition Provides Line to Gulf

With this in mind, 70 per cent of the C&S and FW&D stock was purchased by the Burlington in 1908. A year later, construction began extending the Billings-Kirby branch southward through the Wind River Canyon to a connection with the Colorado and Southern east of Casper, Wyoming. By the time the major extension was completed in 1914, Great Northern had built into Billings and both Northerns had direct connections with Denver and the Gulf.

Hill was perhaps the first to envision this "land bridge" route between the Pacific and the Gulf, and had it not been for the Panama Canal, and the Panama Canal Act of 1914 which forbid carrying materials between the Gulf and Hill's

steamships in the Pacific Northwest, the line may have prospered more than it did.

Always anxious to employ the latest technology, Burlington operated the first printing telegraph (a forerunner of the teletype) in 1910, and in 1915 was the first railroad to use train radio, utilizing a transmitter located at Riverside, Illinois. Communication with trains was achieved, but the need for a telegrapher on board the train made the device impractical. Train radio became a reality in 1943 when aircraft radios were successfully adapted to train operations.

In 1927, the Burlington was one of the first to utilize centralized traffic control and by the end of 1957 had equipped 1,500 miles of track for this advance type of signaling.



Progenitor of the famous family of Burlington Zephyrs was the Pioneer Zephyr, which reached 104 miles per hour on its trial run in 1934. Train is on permanent display at Chicago's Museum of Science and Industry.

Perhaps Burlington's best known achievement took place in 1934, shortly after the railroad introduced the Pioneer Zephyr — America's first diesel-powered streamlined passenger train. Its high-speed diesel-electric propulsion system was the forerunner of thousands of diesels which, in the span of a few short years following World War II, replaced steam locomotives on virtually every railroad in the country.

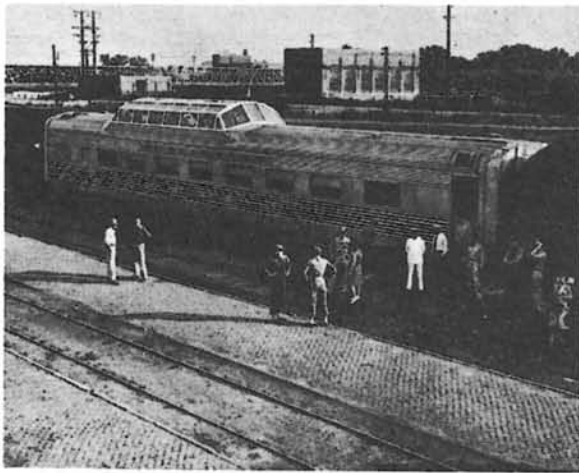
Pioneer Zephyr Establishes Record

On May 26, 1934, Burlington staged one of the greatest transportation events of the Thirties — a 1,000-mile record-breaking, non-stop run from Denver, Colorado to the World's Fair on Chicago's lake front, where the Pioneer Zephyr climaxed the "Wings of a Century" transportation pageant. Bulletins had been broadcast throughout the day as the train streaked through villages and cities. At 8:09 p.m., the Pioneer Zephyr rolled onto the stage and bedlam broke loose. A world's long-distance record had been set, and the value of diesel-electric power was firmly established.

In reporting the run to his directors, president Ralph Budd emphasized two facts: the fuel cost for the 1,000-mile trip was \$14.64 and the highest speed attained was 112.5 miles per hour. In a nutshell — economy and speed, basis for the coming revolution in railroading.

Burlington's first freight diesels were purchased in 1944, and 95 per cent of its operations were dieselized by 1953.

In 1945, Burlington created America's first vista-dome car. In 1950, it ushered in the age of modern commuting, bringing to Chicago America's



First "penthouse" dome car on any railroad was Burlington's "Silver Dome," which made its debut in 1945 on the Twin Cities Zephyr. Car was so popular that within six months 40 more were ordered.

first double-deck, stainless-steel suburban equipment. In 1952, Burlington became the first railroad to completely dieselize a suburban service. An all-new Denver Zephyr entered service between Chicago and Denver-Colorado Springs in 1956 and brought with it another railroading first, the Slumbercoach. These economy sleeping cars provided rooms for coach passengers for only a small occupancy charge.

While the railroad was improving passenger service, freight transportation was also being modernized. The yard at Galesburg, Illinois was equipped with electro-pneumatic retarders in 1931. In 1942, to meet sudden increases in traffic, a second hump yard was built. To match these facilities, the Lincoln, Nebraska yard was converted to hump operations in 1944. The carbuilding shop was moved from Galesburg, Illinois to Havelock (Lincoln), Nebraska in 1943, and the locomotive shops at West Burlington were expanded in 1946 to take care of heavy repairs to diesel locomotives.

Motor Transport Subsidiary Formed

Burlington established a bus and trucking subsidiary in 1935; the former, known as Burlington Trailways, was sold in 1946. The trucking operation was expanded to over 10,000 route miles. It also participated in piggyback traffic with the parent company as early as 1940.

In 1958, the railroad modernized its classification yard at Cicero (Chicago) making it a modern, electronic facility. A new high-level bridge was constructed in 1960 at Quincy, Illinois to replace a 92-year old span. Earlier, in 1954, Burlington completed 71 miles of new line in its Centennial cut-off between Brookfield and Maxwell, Missouri, providing a more direct route between Chicago and Kansas City gateways and shortening the route by over 20 miles.

In 1958, Burlington revolutionized railroad refrigeration techniques by using foamed-in-placed polyurethane to insulate rail cars. The new process produced the strongest, most efficient insulated cars in America, and in many

cases dramatically lowered transportation costs.

A large, three-track diesel maintenance facility was built at Lincoln in 1964. Soon after it opened, the facility was servicing over half of Burlington's motive power fleet.

Burlington's use of computers, which started in 1957, was gradually expanded and by 1967 was functioning on a "real time" basis. A microwave system was built between Chicago and Lincoln in 1966 and a turbo-prop Gulfstream corporate aircraft was acquired the same year. In the span of three short years, the Gulfstream logged over four million passenger miles.

Agency Vans Another CB&Q 'First'

In 1967, Burlington became the first railroad to use direct service agency vans. These offices-on-wheels enabled the railroad to discontinue station structures on numerous branches, yet improve service by having agents go directly to shipper offices.

It was apparent that Kansas City, second most important traffic gateway on the Burlington, would become even more important after merger. Consequently, in 1967, ground was broken for a new automatic classification yard at North Kansas City.

17 Presidents Served Burlington

Presidents of the Burlington in its 121 year history were: Stephen F. Gale, 1849-51; Elisha S. Wadsworth, 1851-52; James F. Joy, 1853-57, 1865-71; John Van Nortwick, 1857-65; James M. Walker, 1871-76; Robert Harris, 1876-78; John Murray Forbes, 1878-81; Charles E. Perkins, 1881-1901; George B. Harris, 1901-10; Darius Miller, 1910-14; Hale Holden, 1914-18, 1920-28; Charles E. Perkins, Jr., 1918-20; Frederick E. Williamson, 1929-31; Ralph Budd, 1932-49; Harry C. Murphy, 1949-65; Louis W. Menk, 1965-66; William J. Quinn, 1966-70.

On March 2, 1970 Chicago, Burlington & Quincy Railroad Co. became part of Burlington Northern Inc., merging with Northern Pacific, Great Northern, and Spokane, Portland and Seattle Railways.



Chicago skyline sparkles in background as CB&Q commuter train leaves Union Station on fast run to Aurora. Modern suburban service in the U.S. began in 1950 when Burlington introduced first double-deck, air-conditioned cars to Chicago commuters. Suburban operation was first to be completely dieselized, in 1952.



Burlington Northern's Predecessors **NORTHERN PACIFIC: FIRST NORTHERN TRANSCONTINENTAL**

Etched indelibly in the history of the Northern Pacific — first of the northern transcontinentals — are the names of visionaries who, long before the railroad was built, recognized the vital need for a rail line spanning the continent from Lake Superior to the Pacific.

Dr. Samuel Bancroft Barlow of Massachusetts championed a northern line as early as 1834. Eleven years later, Asa Whitney conducted explorations nearly 1,500 miles up the Missouri River, returning to urge Congress to charter and authorize construction of a railroad along the northern route.

Edwin F. Johnson, an eminent engineer, made intensive studies in the early 1850's and published a widely-circulated book advocating a northern transcontinental line. In 1853, after considerable debate over competing routes, the U.S. Congress voted an appropriation for five separate surveys.

Isaac Stevens Surveys North Route

Commissioned to survey the northernmost route was Isaac I. Stevens, an experienced Army officer and first governor of Washington Territory. His comprehensive, two-volume report showed the route to be a very favorable one, rich in natural resources and potentially of great economic importance to the growing nation.

Finally, there was Josiah Perham of Massachusetts, who made intensive efforts to persuade Congress to authorize construction of the Northern Pacific and later became the company's first president.

Act Creating NP Signed by Lincoln

The vision and persistent labors of these men and sharers of their dream bore fruit on July 2, 1864, when President Abraham Lincoln signed an Act of Congress creating the Northern Pacific Railroad Company. It would have its eastern terminus at Lake Superior and its western terminus at Puget Sound. Much of its route would follow the trail blazed by Lewis and Clark on their landmark expedition across the uncharted West in 1804-06.

The Act provided for a right-of-way through public lands 200 feet on either side of the tracks, as well as ground for station buildings and other railroad facilities. Also provided were grants of land which could be sold by the company to finance construction through the largely unsettled and unproductive territory.

But the land was of little or no value without the railroad, nor did it serve as a stimulus to

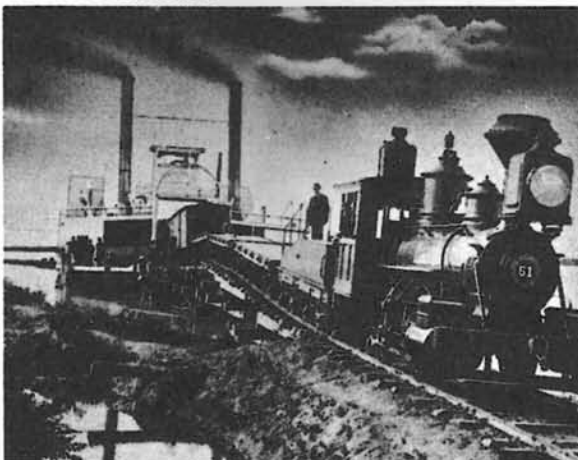
the selling of stock, as had been hoped. Additionally, the Act specifically forbid the company from issuing bonds or imposing mortgages on its property. As a result, the pioneer incorporators, with all of their enthusiasm and energy, were faced with almost insurmountable obstacles in progressing the ambitious project.

The impasse wasn't resolved until 1870, when Congress authorized the Northern Pacific to issue bonds to aid in construction and to secure the bonds by a mortgage on all of its property and rights of property, including its franchise as a corporation. Bonds were issued and the banking house of Jay Cooke and Company was appointed to sell the bonds and handle the company's finances.

Construction Begins in Minnesota

A formal groundbreaking ceremony February 15, 1870 near the present town of Carlton, a few miles west of Duluth, marked the start of the Minnesota Division of the Northern Pacific Railroad Company. Actual construction began in July, with adequate financing assured.

First stirrings of activity on the west end of the projected transcontinental line came at about the same time, the initial goal being to link Portland and Tacoma. Completion of the segment between Kalama, on the north bank of the Columbia River, and Tacoma came in 1873, with much of the material and equipment for this first standard-gauge railroad in Washington Territory shipped around Cape Horn from the Atlantic seaboard.



Ferries carried NP trains across the Missouri River before completion of Bismarck bridge in 1882. During winters of 1879-82, passage over the frozen river was on track laid across ice.

That same year tracks from the East reached Bismarck and the Missouri River in Dakota Territory. A year earlier the fledgling company had leased the Lake Superior & Mississippi River Railroad, giving it a line between Duluth and St. Paul.

At this juncture, construction ground to an almost complete halt as the Great Panic of 1873 brought failure to Jay Cooke and Company and bankruptcy to the railroad. Five years would pass before new financing could be obtained and progress resumed.

Reorganization and refinancing under the presidency of Fredrick Billings breathed new life into the company, and in 1879 the westward march began anew. Tracks reached the eastern boundary of Montana Territory in 1881, and by July 5 that year the railroad was at Glendive.



General George Armstrong Custer is pictured with some of his scouts in the early 1870's while assigned to protect Northern Pacific surveyors and construction crews in Montana Territory.

Construction up the Yellowstone Valley from Glendive proceeded rapidly during 1882, with the season's work ending at Livingston in November. During this period the company was faced with acute shortages of both labor and material. The first was resolved by importing from China 15,000 of the required 25,000 laborers. Because of a domestic steel shortage, it was necessary to import rails, tie plates and spikes from France and England.

Meanwhile, taking advantage of trackage completed by the Oregon Railroad & Navigation Company between Portland and Wallula, in southeastern Washington, the NP rapidly pushed its eastward construction from that point. By the spring of 1883 only 300 miles remained between the two railheads.

Delayed construction of the Pacific Coast line was resumed in 1883, with a September completion of the remaining segment between Goble, on the south bank of the Columbia, and Portland. A large car ferry bridged the river between Kalama and Goble. Operations on an extension to Seattle began in July 1884.



Henry Villard

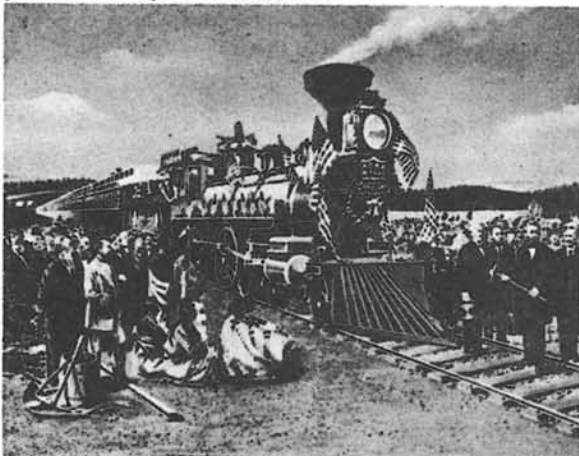
It was under the dynamic leadership of Henry Villard, who became president of the Northern Pacific in 1881, that the lines from the East and the West were finally joined.

Destined to become one of the most colorful figures in American history, Villard had emigrated from Germany in 1853 at the age of 18,

studied law and subsequently became a distinguished journalist. He reported the Lincoln-Douglas debates and the Chicago convention where Lincoln was nominated for president. In Washington he covered the political front for a syndicate of newspapers, and as a war correspondent he chronicled important engagements of the Civil War.

Villard's entry in the transportation field came on a visit to Germany, where a group of European financiers persuaded him to represent them in protecting their investments in American railroads. He not only served his clients well, but soon organized his own company, which eventually led to control of the Northern Pacific.

Completion of the first of the northern transcontinentals was the signal for a lavish celebration at Gold Creek, Montana Territory, where tracks from the East and the West were joined on September 8, 1883.



In this stylized painting of the completion of the Northern Pacific at Gold Creek, former President Ulysses S. Grant is shown raising the maul to drive the ceremonial last spike.

Arriving by special train were distinguished guests from the United States, Germany, England and the Scandinavian countries. Witnessing the ceremony were cabinet officials; 10 United States senators and three former senators; 20 congressmen and four former congressmen; nine governors of states and four

ex-governors; 25 of the nation's top railroad executives; judges; mayors; and 50 journalists.

After the oratory, 300 men quickly laid the rail and drove the spikes on the last thousand feet of track. The ceremonial "last spike" — not gold — was driven by former President Ulysses S. Grant and Henry Villard. It was the same spike used 13 years earlier to mark the beginning of construction near Carleton, Minnesota.

Joining of the rails at Gold Creek marked the first through route from Lake Superior to the Pacific Coast, but not the end of construction. It was still necessary for Northern Pacific trains to run over the rails of the Oregon Railroad and Navigation Company from Wallula to Portland. To comply with its charter requirements, the NP had to build a line from Wallula to Tacoma.

Crossing the rugged and heavily-forested Cascade Mountains took from 1883 to 1887, and was fraught with engineering and construction problems. The pioneer line ascended the steep mountain grades on switchbacks until completion of the 1.8-mile Stampede Tunnel in 1888.

Rapid Growth Follows NP Completion

Less than seven years after Gold Creek, and within three years of the Cascade line completion, the entire tier of northwest territories had sufficient population to join the Union. North Dakota entered on November 2, 1889; South Dakota, which derived much of its population through immigration over the Northern Pacific, came in the same day. Six days later, on November 8, Montana achieved statehood, followed by Washington on November 11. Idaho joined the ranks on July 3, 1890.

The growth and ultimate admission of these states into the Union tell a graphic story of the part played by Northern Pacific in the settlement and development of the Northwest.

Fiscal Crisis Brings Receivership

In the decade following completion of the transcontinental line, the NP turned its energies to constructing branch lines and expanding its operating and other facilities. As the territory prospered, so did the railroad.

The financial crisis which swept the country in 1893 forced a number of lines into receivership, among them the Northern Pacific. The receivership ended in 1896 when the property of the railroad was sold to a new corporation called the Northern Pacific Railway Company. Successfully reorganized on a sound financial basis and with continuing improvement in business conditions, the future brightened for the new company.

Burlington Purchased by NP and GN

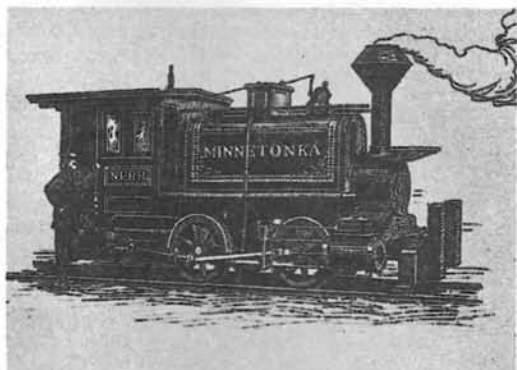
In 1901 the Northern Pacific and Great Northern jointly purchased nearly all of the outstanding stock of the Chicago, Burlington & Quincy Railroad, providing the two lines with direct access to Chicago and the markets of the Middle West and South.

Shortly afterward, the NP and GN joined again in constructing the Spokane, Portland and Seattle Railway, begun in 1905 and completed in 1909, its almost 1,000 miles of main line serving productive areas of Washington and Oregon.

Motor Transport Subsidiary Formed

In 1932 Northern Pacific formed a wholly-owned subsidiary, the Northern Pacific Transport Company, to provide highway freight and passenger service as a motor common carrier and to supplement its rail service. NPT was authorized to operate in the states of Washington, Montana, Idaho, Wyoming, North Dakota and Minnesota.

During World War II and the following decade, Northern Pacific carried out a major rehabilitation program, reballasting and laying heavier rail on 2,000 miles of lines. More than 300 main line curves were eliminated or reduced, bridges and tunnels replaced and new shops and freight houses built.



Northern Pacific's first locomotive, the little balloon-stacked Minnetonka, is still "workin' on the railroad" — more than a century after it began service on original track construction. Built in Pittsburgh by Smith & Porter at a cost of \$6,600, the 12-ton, 27½-foot engine was delivered to the NP in 1870 and saw front-line duty with construction forces in both Minnesota and Washington. Subsequently sold to a logging company, it was discovered in retirement by the NP and completely refurbished for exhibit at the New York and Chicago World's Fairs in the 1930's. Still handsomely preserved, the Minnetonka continues to be exhibited on special occasions by Burlington Northern as a symbol of the contributions made by its predecessor railroads to the development of the West.

As part of its continuing effort to streamline operations and expedite the movement of traffic, NP introduced train radio, continuous welded rail, centralized traffic control and many other technological innovations. The replacement of its steam fleet with efficient diesel-electric locomotives was begun in 1938 and completed in 1958. Many more millions of dollars were invested in new freight and passenger equipment.

At Pasco, Washington the company constructed the first modern electronic freight classification yard in the Pacific Northwest. Completed in

1955, it provided more expeditious handling of the increased traffic from the vast Columbia Basin agricultural empire.

NP installed its first computer in 1957, heralding a new era of efficiency in operations and management. The vital need for a speedy, dependable system to handle the increasing amount of transmitted computer data, as well as telephone communications, prompted the company to begin construction of a microwave system linking St. Paul, Seattle and Portland.

The installation between Seattle and Portland was completed in 1964. Five years later the last microwave tower between Seattle and St. Paul was erected, completing the system and ending NP's dependence on wire transmission, vulnerable to winds, storms, snow and sleet.

Presidents of the Northern Pacific in its nearly 106 years of corporate existence were:

Josiah Perham, 1864-1866; John Gregory Smith, 1866-1872; George W. Cass, 1872-1875; Charles B. Wright, 1875-1879; Frederick Billings, 1879-1881; A. H. Barney, 1881; Henry Villard, 1881-1884; Robert Harris, 1884-1888; Thomas F. Oakes, 1888-1893; Brayton Ives, 1893-1896.

Edward D. Adams, 1896; Edwin W. Winter, 1896-1897; Charles S. Mellen, 1897-1903; Howard Elliott, 1903-1913; Jule M. Hannaford, 1913-1918; Howard Elliott, 1918-1920; Jule M. Hannaford, 1920; Charles Donnelly, 1920-1939; Charles E. Denney, 1939-1950; Robert S. Macfarlane, Jan. 1, 1951 to Oct. 1, 1966; and Louis W. Menk, Oct. 1, 1966 to March 2, 1970.

On March 2, 1970 Northern Pacific became part of Burlington Northern Inc., created by the merger of the NP, Great Northern, Chicago, Burlington & Quincy, and Spokane, Portland and Seattle railways.

Northern Pacific's Lewis and Clark Heritage

No event in history had a greater impact on western railroad construction — and particularly that of the Northern Pacific — than the Lewis and Clark Expedition of 1804-06.

The formal beginning of what has been described as "our national epic of exploration" was President Thomas Jefferson's unpublicized message to Congress on January 18, 1803, requesting \$2,500 "for the purpose of extending the external commerce of the United States."

President Jefferson, realizing its importance to the young nation, had long wanted to explore the route to the Pacific, even before the Louisiana Purchase. Within a month of the signing with France on July 4, 1803, 29-year-old Captain Meriwether Lewis was on his way down the Ohio River in a keelboat loaded with supplies for the expedition. His co-captain in the "Corps of Discovery," William Clark, would join him at Louisville on October 26.

The historic journey into the little-known Missouri River country began at St. Louis on May 6, 1804. The basic mission of the band of courageous men led by Lewis and Clark would be to survey and describe a route from the Rockies to the North Pacific shore — an overland right-of-way from the Louisiana Purchase to the point of Captain Robert Gray's Columbia River discovery.

No other white men ever had made this long, hazardous journey through the wild Upper Missouri, across foreboding mountains and then down the great Columbia River to the sea.

When the Lewis and Clark party returned in August 1806 to the Dakota country near present-day Mandan, where they first wintered in 40-below-zero weather, they had been lost to the world for nearly two and a half years. Generations of Americans have since been thrilled and inspired by their adventures and accomplishments during that period. The expedition journals, with carefully detailed notes on botany, wildlife, Indian customs and languages, permanently enriched the nation's cultural and scientific heritage.

Not long after the expedition's conclusion, agitation began for the construction of railroads to serve the new territory. Many in time would follow or transect the Lewis and Clark route, but most notably the Northern Pacific.

From Bismarck the NP main line paralleled the explorers' trail along the Missouri, Yellowstone, Gallatin and Jefferson rivers to Helena, Montana; then picked the trail up again where the little band canoed down the Snake River to its confluence with the Columbia, near present-day Pasco, Washington. Many cities and towns along the NP in North Dakota, Montana and Washington closely identify with episodes in the Lewis and Clark journals.

Meriwether Lewis and William Clark opened an unexplored wilderness to settlement, reinforcing the claim of their nation to the so-called Oregon country. The Northern Pacific Railway became the instrument of settlement.



Burlington Northern's Predecessors **GREAT NORTHERN: JAMES J. HILL'S 'GREAT ADVENTURE'**

The epic completion of Great Northern Railway's transcontinental line to the Pacific in 1893 and the creation of Burlington Northern 77 years later were in a very real sense the fulfillment of one man's dreams. That man was James Jerome Hill, "The Empire Builder."

But the railway which bore his unique stamp had its genesis even before Hill's long association with that enterprise; and those who succeeded him in leadership made notable contributions of their own to its successful 108-year history, and to the merger which ultimately produced the closing chapter.

St. Paul & Pacific Begins Service

When Great Northern began planning a centennial observance, nearly a decade prior to the merger, it chose to commemorate not a "paper" beginning, but 100 years of actual service.

The bench mark for that occasion was the maiden run of a diminutive balloon-stack locomotive, the "William Crooks," and its two cars from St. Paul to the Village of St. Anthony, now Minneapolis. The date was June 28, 1862. The 10 miles of railroad, known grandiosely as the St. Paul & Pacific, was the first in Minnesota and much of the Northwest.



The "William Crooks," Great Northern's "Old No. 1," is pictured at Elk River, Minnesota in 1864. Pioneer locomotive was given to the Minnesota Historical Society in 1962 on 100th anniversary of its maiden run.

The pioneer line, which wouldn't become known as Great Northern until 1890, had its corporate origin in 1857 when the Minnesota legislature, eager for rails in its territory, granted a charter to the Minnesota & Pacific Railroad Company to "construct a railroad in the direction of the Pacific."

Some 62½ miles of roadbed had been made ready for rails when the Minnesota & Pacific, bogged down with delays precipitated by financial difficulties, forfeited its properties to the state. The St. Paul & Pacific Railroad Company, chartered March 10, 1862, acquired the rights,



Photos show James J. Hill in 1883, a year after becoming president of St. Paul, Minneapolis & Manitoba Railway, and in 1910, two years before retirement.

including a grant of land in Minnesota, and quickly completed the original 10 miles of line.

Meanwhile, young Jim Hill, age 18, had arrived in St. Paul from his birthplace near Rockwood, Ontario to begin his "great adventure." His very first job, in 1856, was in transportation, as a shipping clerk in the office of a Mississippi River steamboat company. He watched and learned as rail expansion progressed slowly.

In 1865 he entered the transportation field on his own account, representing a steamboat line connecting with east-bound rails at lower Mississippi River points. A year later he was agent for the First Division of the St. Paul & Pacific. By 1870 he was in a partnership doing general business in wood, coal and commissions, and in another operating a steamboat service on the Red River of the North.

Hill And Friends Buy Pioneer Line

The affairs of the St. Paul & Pacific were in a steady decline in the 1870's, due to financial and other problems, with no funds in prospect to complete and connect up its several unfinished lines. While the resources and possibilities of the region were ridiculed in the East, Hill saw great potential in the struggling railroad and the territory it eventually would serve.

In 1878 he persuaded three other men of vision to join him in acquiring the St. Paul & Pacific. One was Norman W. Kittson, his partner in the Red River Transportation Company. The others were George Stephen, president of the Bank of Montreal, who became Lord Mount Stephen, and Donald A. Smith, chief commissioner of the Hudson's Bay Company, who would be similarly honored as Lord Strathcona. Both subsequently gained fame as pioneer railway builders in Canada.

On May 23, 1879, following foreclosure

proceedings, the properties were reorganized as the St. Paul, Minneapolis & Manitoba Railway Company, with Stephen as president and Hill as general manager. By now the new company had 560 miles under operation, all in the State of Minnesota.

Hill's early judgment of the prospective earnings of the railroad, if rehabilitated and properly managed, was thoroughly vindicated by the time he became president in 1882. That year, notwithstanding large expenditures for betterments, a 7 per cent dividend was paid to stockholders. For half a century thereafter, until the depression year of 1933, the company maintained an uninterrupted record of dividend payments.

Colonization Was Key To Expansion

The expansion of the railroad in Minnesota and into Dakota territory continued at a steady pace, and by the close of 1885 the system of main and branch lines had grown to 1,470 miles.

It has been said of other sections of the West that they were settled from the ox cart; "Hill country" was settled from the box car. Hill laid his rails first, then labored tirelessly to create traffic for his trains. The success of his plans for rapid expansion depended upon quick and sound colonization. Having sold his country, it was up to him to make it "make good" after the settler moved in.

So he started showing the farmers how to improve their methods, and in the process became an authority on agriculture and livestock. He was an early advocate of diversification and conservation of natural resources. He imported purebred stock; introduced improved strains of seed; established experimental farms and credit facilities for producers. And he held rates at a level which would enable settlers to sell their products competitively in distant markets.

The formula enabled Hill and his associates to expand their mileage rapidly without land grants or government subsidies of any kind, other than the limited original grant of the Minnesota & Pacific.

1887 Construction Set New Records

In 1886 the main line of the St. Paul, Minneapolis & Manitoba was extended westward from Devils Lake to Minot, Dakota Territory, to set the scene for one of the great epochs of railroad construction.

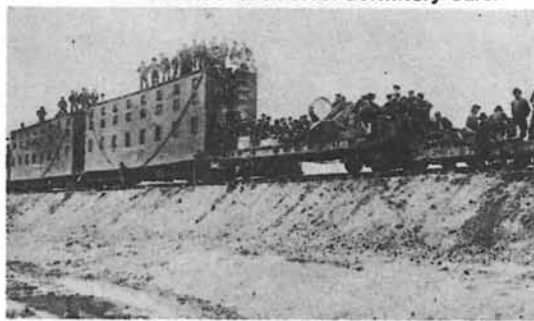
Between April and mid-October 1887, 545 continuous miles of line, reaching across largely unsettled wilderness all the way from Minot to Great Falls, Montana Territory, was graded, bridged and laid with track.

The logistics of an operation so distant from sources of supply were staggering, with 8,000 men and 3,300 teams pushing the construction. In one all-time record day, August 11, 44,100 feet of track was laid.

By November 18 another 96½ miles were completed between Great Falls and Helena by the subsidiary Montana Central Railway Company, bringing the season's total to 641½ miles. At



Scenes from record-breaking year of 1887 show track being laid across virgin prairie in Dakota Territory, and St. Paul, Minneapolis & Manitoba work train with unusual tri-level dormitory cars.



Helena the new line connected with the Northern Pacific, which had been completed to the Pacific Northwest four years earlier.

The Minneapolis & St. Cloud Railway, chartered in 1856 by the Minnesota legislature, remained a "paper company" until acquired by Hill in 1881 for its charter rights, which were broader than those of his Manitoba Company.

Line Named Great Northern In 1890

On September 18, 1889 the name of the Minneapolis & St. Cloud was changed to Great Northern Railway Company. On February 1, 1890 the Great Northern took over the properties of the St. Paul, Minneapolis & Manitoba.

The new era began auspiciously. That winter, on December 11, in 40 below zero weather, Engineer John F. Stevens had found the long-elusive Marias Pass, offering a superlative low-level route over the Rockies at only 5,213 feet above sea level.

Construction of Great Northern's Pacific Coast extension began early in 1890 at Pacific Junction, four miles west of Havre in what now was the fledgling State of Montana. Between here and Puget Sound lay 815 miles of mostly wild and rugged mountainland. Except for the town of Spokane it was virtually uninhabited.

At the close of 1892, less than three years later, only a 7-mile gap remained in what once was referred to as "Hill's Folly." On January 6, 1893, in the towering Cascades near Scenic, Washington, the final spike was driven.

Regular service between Seattle and the East over the new transcontinental line began in mid-year. Great Northern trains had been operating to Portland, however, since 1891, with running rights over the line of the Oregon Railway & Navigation Company from Spokane.



Completion of Great Northern Railway's line from St. Paul to Puget Sound was marked by a simple and unheralded spike-driving ceremony January 6, 1893 near the present station of Scenic, Washington.

The Panic of 1893 swept a fourth of the nation's railroad mileage into receivership. Included was the Northern Pacific, provoking Hill's first effort to unify the operations of the two lines. However, a plan in which Great Northern would agree to guarantee both the principal and interest on bonds of the reorganized Northern Pacific was found by the Supreme Court to be in conflict with a Minnesota statute prohibiting consolidation of parallel and competing lines.

1901 Saw Second Attempt At Merger

Another precursor of the Burlington Northern merger was Hill's second attempt at unification, through formation of a holding company, in 1901. The Supreme Court held this plan to unite the Great Northern, Northern Pacific and Chicago, Burlington & Quincy railroads in violation of the Sherman Act.

Hill abhorred an empty box car, and the normal movement of freight over his newly-completed Pacific Coast extension was certain to be preponderantly westbound. To avoid the waste of hauling empty cars eastbound and to develop the lumber industry in his territory, he drastically reduced lumber rates, opening new markets in the Mississippi and Ohio valleys to Pacific Northwest mills.

Service to Orient Is Established

In 1896 he negotiated an agreement with Nippon Yusen Kaisha, largest steamship line in the Pacific, resulting in the establishment of service between Seattle and Oriental ports. It was a bold challenge to the established commerce between Europe and the Orient, and marked the beginning of Seattle's ascendancy as a world port. NYK and Great Northern established rates that soon enabled them to gather up steel rails from as far east as Pittsburgh, flour from Minneapolis and cotton from the South for shipment to the Orient.

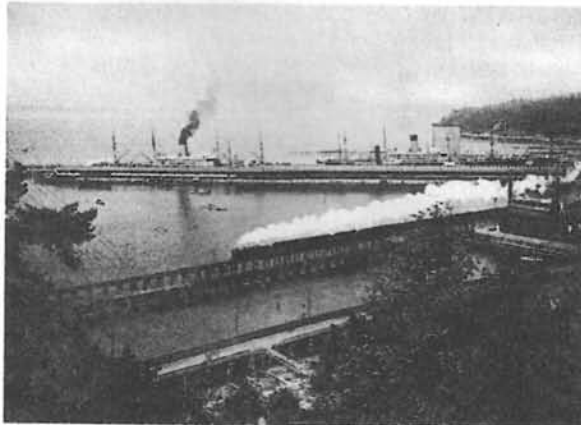
By the close of 1900, new construction and acquisition of existing lines had boosted Great Northern's operation to more than 5,000 miles, and a direct route to Chicago had become a competitive necessity. In 1901 Hill negotiated the purchase

by Great Northern and Northern Pacific of nearly all of the outstanding stock of the Chicago, Burlington & Quincy Railroad, giving the parent lines access to Chicago and the markets of the Midwest and South.

The building of a railroad never ends, and Great Northern lines constantly were upgraded and frequently relocated for more economical operation and better service.

Major changes in the first two decades following the Pacific Coast extension included the original 2.6-mile Cascade Tunnel in 1900, eliminating a series of hazardous switchbacks over Stevens Pass; a 69-mile relocation of the main line between Columbia Falls and Rexford, Montana, in 1904; and completion in 1912 of the Surrey cutoff between Fargo and Surrey, North Dakota, reducing Great Northern's transcontinental route by 52 miles.

Meanwhile, in 1905, under Hill's aegis, the Great Northern and Northern Pacific formed the Spokane, Portland and Seattle Railway Company, which built a line from Spokane, Washington to Portland, Oregon, and subsequently acquired other lines in Oregon by purchase, lease and building. Important new markets and sources of freight resulted.



"Minnesota" and "Dakota" were world's largest cargo vessels when built by Great Northern Steamship Company for trade between Seattle and Orient. Pictured with ships in 1905 photo is "Oriental Limited" passenger train.

On his retirement in 1912 from the chairmanship and active direction of the railroad system his genius had created, Hill said: "Most men who have really lived have had, in some shape, their great adventure. This railway is mine." He died in St. Paul on May 29, 1916.

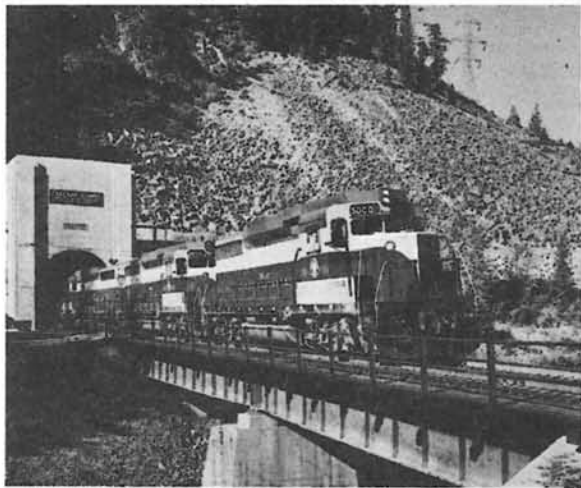
The decade 1920-1930 was one of brilliant achievement by Great Northern under the presidency of Ralph Budd. Improvements to the railroad in that period totaled \$160 million, including two major engineering projects which attracted world-wide attention.

Weakest link in Great Northern's route to the coast was its line across the Cascades, costly to operate and difficult to maintain, and conspicuously out of place in a system that had the shortest line between the Great Lakes and the Pacific, with the least curvature and lowest grades.

On Thanksgiving Day, 1925, the railway's directors authorized construction of an 8-mile tunnel, the relocation of all but 7 miles of the

50-mile line between Peshastin and Scenic, Washington, the elimination of nearly 12 miles of tunnels and snowsheds and the electrification of 75 miles between Wenatchee and Skykomish.

Total cost of the historic project was approximately \$25 million, and its completion on January 12, 1929 was signaled by a nationwide radio broadcast in which President Herbert Hoover participated. Cascade Tunnel, straight as a rifle bore, is still the longest in the Western Hemisphere. (Second longest is 7-mile Flathead Tunnel in northwestern Montana, begun by Great Northern in 1966 and completed by Burlington Northern in 1970.) Operations through the Cascade Range were fully dieselized in 1956.



Installation of ventilating equipment in Cascade Tunnel in 1956 permitted operation of diesel locomotives through the 8-mile bore and ended electrification. Project included rebuilding of east portal, seen here.

Second major project of the Twenties was Great Northern's California extension through central Oregon, beginning in 1927 with 68 miles of construction from Bend to Chemult. Traffic rights over the Southern Pacific provided a link to Klamath Falls. Great Northern then built from there into California 92 miles while the Western Pacific was building north 112 miles from Keddle. The two lines met at Bleber, California on November 10, 1931.

With the addition of California, Great Northern now served 10 states and 2 Canadian provinces—Minnesota, Wisconsin, North and South Dakota, Iowa, Montana, Idaho, Washington, Oregon, California, Manitoba and British Columbia.

First Empire Builder Inaugurated

Completion of the new Cascade crossing in 1929 presaged the inaugural in June that year of the first of Great Northern's famous Empire Builder passenger trains, operating daily between Chicago and the Pacific Northwest. Great Northern not only provided an outstanding passenger service through the years, but was in the forefront in developing and promoting western tourism. The railway was particularly identified with Glacier National Park, in Montana, where it owned and operated hotels and other facilities for nearly 50 years until their sale in 1960.

World War II saw Great Northern busy as a vital military supply line, with all-time records for



"Empire Builder" crosses Continental Divide at Marias Pass. First streamlined edition of famed train came in early 1957. A second completely new fleet followed in 1951, with dome cars added four years later.

freight traffic set consecutively in 1942, 1943 and 1944. An all-time record passenger year was recorded in 1945.

The post-war years brought a virtual revolution in railroading, paced by dieselization of the motive power fleet. The "iron horse" that built the West saw its last service on Great Northern in 1957.

Centralized traffic control, train radio, continuous welded rail, computerization, electronic classification yards, specialized freight equipment and handling, modern marketing techniques and a host of other innovations not only accelerated the pace of railroading but contributed immensely to the increased productivity which enabled railroads to keep rates stable and remain competitive. Great Northern, down through the years to merger, continued to earn recognition as one of the preeminently progressive railroads in the nation.

Only 7 Served As President of GN

Presidents of Great Northern following James J. Hill were: Louis W. Hill, Sr., 1907-1912; Carl R. Gray, 1912-1914; Louis W. Hill, 1914-1919 (Mr. Hill was Chairman of Board from 1912 to 1929); Ralph Budd, 1919-1931; William P. Kenney, 1932-1939; Frank J. Gavin, 1939-1951; and John M. Budd, 1951 to 1970.



Great Northern's last major line change before merger was multi-million improvement project in Cascades, begun in 1961 and completed in 1968. Eastbound freight is pictured on new bridge across Skykomish River.



Burlington Northern's Predecessors **THE SP&S: IT BECAME "THE NORTHWEST'S OWN RAILWAY"**

Geography and a keen vision of the vast potential for commerce along a water-level route through the towering Cascade Mountain Range combined to create the Spokane, Portland and Seattle Railway Company shortly after the turn of the century.

The SP&S was incorporated under the general laws of the State of Washington on August 23, 1905, as the Portland and Seattle Railway Company, but its heritage dates from the early 1880's.

NP Began North Bank Line in 1881

The Northern Pacific Railway Company, pursuing a plan to construct a line from Pasco, Washington to Portland, began laying a grade along the north bank of the Columbia River in 1881 near a station now called Maryhill, 114 miles east of Portland. The project was abandoned in 1883 when Henry Villard gained control of the NP and an agreement was made for the NP to reach Portland by operating over the Oregon Railway and Navigation Company line along the south bank of the Columbia, thus completing the NP as the first northern transcontinental railroad.

The grade on the north bank was later utilized by the Columbia Railway and Navigation Company, which acquired rights in 1885 to locate a line between Vancouver and Kennewick, Washington. The NP in 1902 acquired the CR&N property at a sheriff's sale and reorganized the company to carry out the work of surveying and acquiring rights of way in contemplation of the line later built by the SP&S.

Hill Plans Spokane-Portland Link

Contemplation yielded to action with the declaration of Great Northern's James J. Hill at the 1905 Lewis and Clark Exposition in Portland that he intended to "help in the development of Oregon" by building a railroad from Spokane to Portland.

By 1905, the GN and NP were well established with transcontinental lines reaching more than halfway across the nation from Puget Sound to Minneapolis and St. Paul. Under Hill's stimulus, they had joined four years earlier to purchase nearly all the outstanding stock of the Chicago, Burlington & Quincy Railroad for a direct line to Chicago and the cities of the East and to a growing network of mid-continent lines.

The West still beckoned, and the potential of a new line into Oregon commanded Hill's intense interest. NP rights along the Columbia's north bank provided an attractive route, and

again the two "Northern Lines" joined forces. From the beginning, the venture was controlled and financed jointly by the GN and NP, each with 50 per cent ownership. This division of interest afforded the independence that gained for the new railroad recognition as "The Northwest's Own Railway."

The original corporate charter envisioned the construction of lines not only between Spokane and Portland, but from Spokane to Seattle and Seattle to Portland. Although the Seattle links never were to be built, a charter amendment February 1, 1908 perpetuated this concept. On that date the name of the fledgling corporation was formally changed to Spokane, Portland and Seattle Railway Company.

Under its charter, the SP&S also was authorized to build toll bridges across the Columbia and to operate ferries and other craft on the river and Pacific Ocean — the latter provision being fulfilled in the organization of a steamship company in 1914.

Harriman Dispute Settled in 1907

When work began in August 1905 on the first segment of the new "North Bank Line" between Vancouver and a connection with the NP at Pasco, it triggered the active opposition of Edward H. Harriman's OR&N and competitive south bank interests. The contest for supremacy in common territory created several intensely dramatic situations.

To firmly establish its rights and to secure property in the face of opposition, the new company initiated construction simultaneously at several locations along the Columbia. Rival



Gold spike ceremonies March 11, 1908, marked completion of SP&S main line along north bank of Columbia River, three miles west of Stevenson, Washington. The event attracted scores of dignitaries.

obstructive tactics were frequent for nearly two years until, in 1907, the courts settled a dispute over Cape Horn Tunnel, 35 miles east of Portland.

Harriman interests began tunneling from the west, while SP&S crews bored from the east side of the cape. Only one tunnel could be made through the towering monolith at the river's edge, and its control held in balance the fate of the north bank route. The courts affirmed the claims of Hill and the SP&S, judging that Harriman had no intention of actually building and operating a north bank line. The rivalry subsided, only to emerge again in 1909 with a race to win the central Oregon route into California.

Gold Spike Driven March 11, 1908

Construction of the new line was completed in record time. The last rail between Vancouver and Kennewick, across the river from Pasco, was laid February 26, 1908 at Sheridan's point, 50 miles east of Vancouver. Two weeks later, on March 11, an excursion train brought scores of dignitaries to the site for the ceremonial driving of a golden spike.

Roadmaster M.F. Kincaid recorded the historic event with a closing note that "the prominent citizens drew the golden spike after the ceremony and took it with them."

Commerce moved over segments of the line during construction. First service on a regular schedule dates from December 1907, and by May of 1909 the entire 375-mile line between Marshall, near Spokane, and Portland was in service.



Passenger and freight runs along segments of the SP&S North Bank line began shortly after the start of construction in 1905. In this photo a temporary trestle spans Hamilton Creek near North Bonneville.

The new line thrived as lumber and other Pacific Northwest products moved to connections with the parent railroads at Spokane. Its success spurred expansion through acquisition of other lines in Washington and Oregon and by construction of lines for wholly-owned subsidiaries.

The Columbia River and Northern Railway Company line built in 1902 from Lyle, on the bank of the Columbia, north to Goldendale, Washington, was purchased on March 30, 1908. Two years later, the SP&S purchased the Astoria

and Columbia River Railroad Company, founded in 1895. Its line from Holladay, near Astoria, to Goble, Oregon, and a branch south from Astoria and Warrenton to Fort Stevens opened a gateway to the mouth of the Columbia, with operating rights over the NP line between Goble and Portland.

The highly productive Willamette Valley south of Portland and its access to timber in the flanking Cascade and Coast mountain ranges commanded Hill's continuing interest in penetrating Oregon more deeply.

In February 1910 he purchased practically all the stock of the Oregon Electric Railway Company, which had been formed in 1906 to construct or acquire lines south through Salem to Roseburg. The United Railways Company, formed in 1906 as an interurban electric serving parts of Portland and extending west into the Tualatin River Valley, was similarly acquired by Hill.

Hill Eyes Deschutes Canyon Route

A line contemplated by others, who in 1909 formed the Oregon Trunk Railway and established claims to a right of way along the Deschutes River Canyon in central Oregon, was seen by Hill as a choice route east of the Cascades that possibly could be extended south all the way into California. This line was easily linked with the SP&S by bridging the Columbia River between the mouth of the Deschutes and Wishram (then known as Fallbridge) on the SP&S main line in Washington.

Hill made cash advances to the OT for construction on June 4, 1910, and on that same date, for himself and for Great Northern, offered half interest in the Oregon Trunk, Oregon Electric and United Railways to Northern Pacific, with the understanding that these lines and their extensions become property of the SP&S. NP accepted the offer on June 6, and an exciting new chapter in Pacific Northwest railroad history began to unfold.

Stevens Is Oregon Trunk Engineer

John F. Stevens, famed discoverer of Marias Pass for GN's main line and later chief engineer of the Panama Canal, was named chief engineer for construction of the OT. He also was made president of the OE and United Railways.

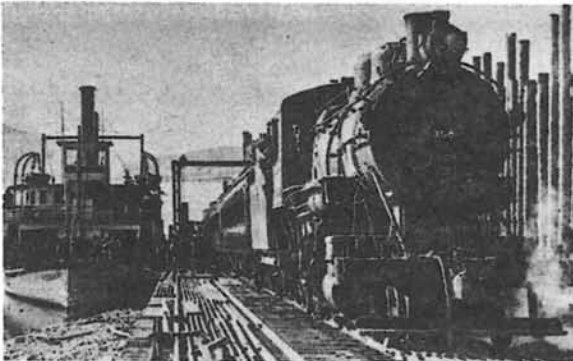
The OE reached Salem and had a branch line from Garden Home to Forest Grove by January 1908. An extension was completed to Eugene in 1912, and a branch line built to Corvallis in 1913. Ambitions to continue south to the Siskiyou Mountains and into California faded, but in 1931 service was extended from Albany to Lebanon over Southern Pacific lines and a new line built to serve the Santiam River Valley.

Harriman's interest in the Deschutes River route into central Oregon paralleled that of Hill. The OT and Harriman's Deschutes Railroad chose opposite banks of the Deschutes Canyon and raced to reach control points to the south. Rival crews intermittently and, sometimes violently obstructed the progress of the other.

The "War of the Gorges" finally was settled by a federal ruling known as "The Canyon Act," and on September 30, 1911 the two companies reached a compromise by completing a single line from Metolius to Bend, the OT's southern terminus. Competitive amicability has since prevailed. The GN later built a line of its own south from Bend to Bieber, California to realize Hill's dream of a route into the Golden State.

In December 1921 United Railways, by then a subsidiary of the SP&S, acquired the Portland, Astoria and Pacific Railroad Company and Nehalem Boom Company, both owned by the Oregon-American Lumber Company. The Gales Creek and Wilson River Railroad Company, founded in 1917 to build lines west of Portland from Wilkesboro to Tillamook on the Oregon coast, was purchased by land development subsidiaries of the NP and GN in January 1922 in the interest of the SP&S.

These added rail lines linked with the Oregon Electric and the SP&S line to Astoria, expanding rail traffic potential from points west of Portland. Nehalem Boom Company, in addition to lumber and logging related operations, held railroad rights along the Columbia and Willamette Rivers northwest of Portland.



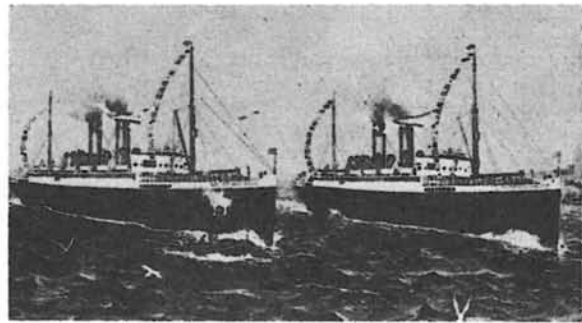
For a period after completion of the Oregon Trunk in 1911, freight and passengers were ferried across the Columbia from Clarke, Oregon to Wishram, Washington, for an SP&S connection. Bridge was built later.

The SP&S also served as an intermediary for its parent companies in real estate and steamship ventures.

Ruth Trust Company, founded in 1908 by incorporators of United Railways, later was placed in SP&S control. Its name was changed in 1913 to Ruth Realty Company.

Great Northern Pacific Steamship Company was formed by GN and NP as an Oregon corporation on September 30, 1914, to acquire and operate ships, tugs, other water craft and attendant marine service facilities. Its primary purpose was to provide a fast passenger service to California in competition with the Southern Pacific, the immediate incentive being the opening of the Panama-Pacific International Exposition in San Francisco in 1915.

The SP&S was issued all outstanding shares in the steamship company, and contracts were



Twin steamships "Great Northern" and "Northern Pacific" had 20-knot speed, crew of 201. During winter they ran between San Francisco, San Pedro and Honolulu, returning to their coastal route in spring.

let for the construction in Philadelphia of two luxury vessels, the "Great Northern" and "Northern Pacific", at a cost of \$4,463,500.

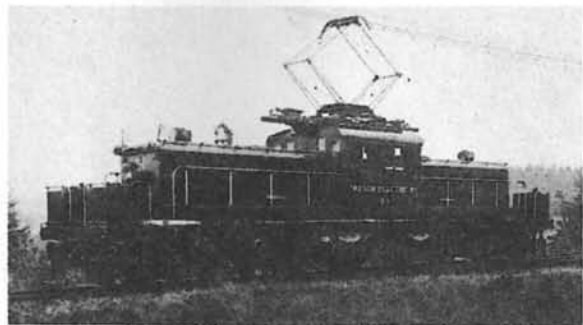
These two fastest ships under the American flag began service in March 1915 on a 27-hour schedule between Flavel (Astoria) on the Columbia River and San Francisco, making six round trips monthly.

World War I brought an end to this venture when the "Great Northern" and "Northern Pacific" were "drafted" by the U.S. Navy and outfitted for trans-Atlantic troop service, where they performed with distinction.

On their own competitive lines, the parent companies set a pace of industrial development, freight and passenger service that was matched by their vigorous offspring. The SP&S emerged with style of its own that capitalized upon the competitiveness of its parents. A new service by one that involved the SP&S was quickly matched by the other.

The SP&S attracted hundreds of major industrial plants to locations along its lines and those of its subsidiaries, and in the days before private automobiles the company boasted the services of as many as fifty daily passenger trains.

Construction of hydro-electric dams on the Columbia River in the 1930's and 1950's brought new surges of industrial development. These also forced relocation of the SP&S main line along the north bank. New rail, laid in an era of more advanced railroad technology, won acclaim for the SP&S for one of the finest



Oregon Electric locomotive No. 51, built in SP&S shops at Vancouver, was one of two such workhorses in heavy freight service on the OE prior to abandoning electrification and dieselizing the line in 1945.

stretches of track in the nation.

The SP&S had its own presidents from 1907 through 1932, after which presidents of the parent companies alternated as chief executive officers, with management and operating responsibilities delegated to a vice president and general manager.

President were: Francis P. Clark, 1907-1909; George B. French, 1909-1910; John F. Stevens, 1910-1911; Carl R. Gray, 1911-1912; J. H. Young, 1912-1913; L. C. Gilman, 1913-1920; and W.F. Turner, 1920-1932.

From 1932 to 1940, the SP&S was operated as a division of the parent companies under a superintendent headquartered at Portland who was responsible to general managers of the

parent companies at Seattle.

In 1940, M. C. La Bertew became vice president and general manager of the company after having served as superintendent of the division. His successors were: T.F. Dixon, 1943-1947; E. B. Stanton, 1947-1953; J. C. Moore as vice president and E. H. Showalter as general manager, 1953-1957; L. W. Albertson as vice president and Showalter as general manager, 1957 to 1960; and N. S. Westergard as vice president and general manager 1960 to March 2, 1970.

On March 2, 1970 the SP&S became part of Burlington Northern Inc. under a lease arrangement that unites it with its parent lines and the Chicago, Burlington and Quincy.

Rivers Shaped The Destiny of the SP&S

Great rivers of the West were a major influence in railroad location, and nowhere is this more apparent and significant than with the Spokane, Portland and Seattle Railway.

Rivers have been natural arteries of travel and commerce since earliest days, but in the mountainous West their deep gorges and occasional flood plains also offered the most suitable grades for railroads.

The SP&S hugs the north bank of the scenic Columbia and Snake Rivers for 290 of the 380 miles between Portland and Spokane. West of the mountains, waterfalls cascade down from towering peaks capped with snow and lush with forest greenery. To the east the scene quickly changes in just a few miles to the stark beauty of almost barren foothills, deprived of rains trapped on the other side of the mighty Cascade Range.

From Portland, west to Astoria and the Coast, the SP&S line skirts the tidewaters of the lower Columbia's south bank, an easy 100-mile course through the Coast Mountain Range.

The Deschutes River is a thundering mountain stream with precipitous drops on its way to the Columbia. Still, its canyon yields the easiest grade east of the Cascades into Central Oregon for the Oregon Trunk Railway, an SP&S subsidiary line reaching 151 miles south to Bend.

The Oregon Electric Railway line, west of the Cascades, is nestled in the broad flood plains of the Tualatin and Willamette River Valleys, a gentle grade for almost all of the 140 miles from Portland to Eugene.

These natural corridors were economically attractive to the founders and builders of the SP&S and its predecessors. Less motive power was required to operate heavily laden freight trains, and their shores were natural settlements for a growing population. Through the years, extensive utilization of water resources for power and irrigation brought flourishing industrial and agricultural development to the railway.

Historians of the more recent SP&S years rightly call it the "newest line in the West." Great stretches of its main line along the Columbia and Snake Rivers have been relocated to permit construction of federal dams at intervals along nearly 200 miles from Bonneville to the Lower Snake.

Bonneville Dam, completed just west of Stevenson, Washington in 1938, necessitated the first major line change. McNary Dam in 1951 just south of Pasco, Washington, The Dalles Dam in 1957 near The Dalles, Oregon, Ice Harbor Dam in 1958 on the Snake River just east of its confluence with the Columbia, and the John Day Dam in 1966 near Cliffs, Washington, each required moving of rails to higher grades above their respective slack-water pools.

The SP&S emerged with track, bridges and other facilities of contemporary design and materials and the added benefits of more advanced engineering techniques.

Each dam and its surge of hydro-electric power brought an economic boost to the region and its "own railway." Aluminum plants and other giant industries requiring abundant electrical power and water found ideal locations along the SP&S. Slack-water above the dams provided a source from which to irrigate hundreds of thousands of acres of parched land, and agri-business added to the development boom.

Now part of Burlington Northern's Portland Region, the river-level lines offer promise of ever-expanding freight traffic for the new company — westbound to meet new industrial needs and the requirements of a growing regional population and eastbound to move the expanding production of the resourceful west to markets in the mid-continent and Eastern states.



Burlington Northern Railroad's Predecessors **THE FRISCO: A BATTLER AND A SURVIVOR**

Frisco History

The story of the St. Louis-San Francisco Railway Company — known for more than a century to its mid-South neighbors as the Frisco — is a narrative of battles against long odds and of adaptation to changing circumstances. Whatever else it may have been, the Frisco was a survivor.

The story begins in 1849, when discovery of gold at Sutter's Mill in California fanned America's long-smoldering desire for some sort of connection with the markets of the Orient.

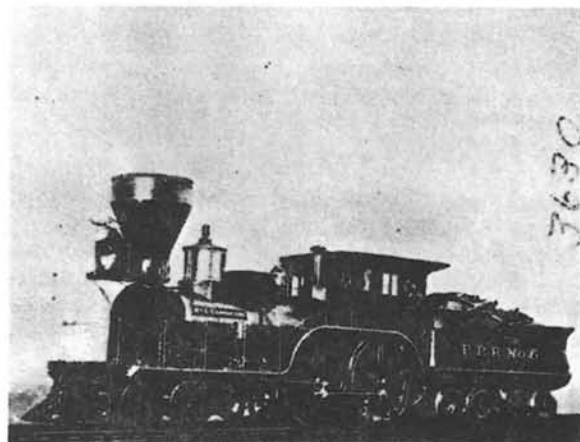
In that year the Pacific Railroad of Missouri was chartered by the Missouri legislature to build a line from St. Louis almost due west to the Missouri-Kansas border.

Despite the interest of the legislature, it was July 1851 before work actually began on the Pacific; at that time there were no railroads west of the Mississippi, and none had reached it from the east.

Even before the first 37-mile stretch of the Pacific was completed in 1852, the legislature had authorized construction of a branch line to leave the main line at Franklin (now Pacific) and run southwest to Springfield and the Indian Territory border.

Backers Had High Hopes

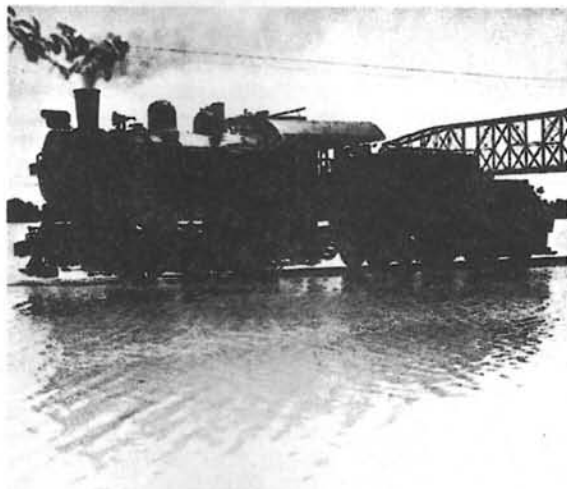
There were high hopes for the South-West Branch, as it was called. Its backers believed it would be extended into Indian Territory to the 35th Parallel, along which a railroad route to San Francisco was even then being surveyed at the behest of Congress, which also had authorized several other surveys of potential transcontinental routes.



The Pacific Railroad of Missouri's locomotive No. 6, the Gasconade, handled early-day trains on the Pacific's South-West Branch, which became the nucleus of the Frisco system.

The money troubles that had delayed the start of construction on the Pacific caused a similar delay for the South-West Branch, and it was June 1855 before construction began on what would become the nucleus of the Frisco system.

Once begun, work proceeded rapidly, and the onset of the Civil War found the railroad completed to Rolla, about 75 miles southwest of Franklin. There the terminus remained throughout the war, despite President Lincoln's interest in further extending the line.



Frisco's water-level route along the Mississippi between St. Louis and Memphis was sometimes exactly that. Here, the Cape Girardeau, Mo., switch engine gets her feet wet during one of the river's periodic floods.

Marauders Created Havoc

The marauding bands of bushwhackers and jayhawkers that terrorized much of Missouri during the war did considerable damage to both the South-West Branch and its parent Pacific. Both were bankrupt by war's end.

They were sold to General John C. Fremont, the noted explorer and son-in-law of Missouri Senator Thomas Hart Benton. Benton had been one of the driving forces behind the transcontinental railroad projects in which Missouri was interested.

Fremont — with his Washington influence — was able to obtain a federal franchise and land grant in the name of his Atlantic & Pacific Railroad for extension of the South-West Branch to San Francisco along the 35th Parallel survey route.

However, he was considerably less successful in actually laying track, and, in 1868, the South Pacific Railroad Company acquired the line from the State

of Missouri after Fremont failed to make the first installment of the branch's purchase price.

South-West Branch Extended

The South Pacific extended the erstwhile branch to Lebanon in 1869 and on through Springfield to Pierce City in 1870, and grading was completed to Seneca on the Indian Territory border.

In 1870, the South Pacific's line came once more under control of the Atlantic & Pacific, which had retained control of Fremont's St. Louis-San Francisco franchise and his land grant as well as control of the Pacific Railroad of Missouri.

Construction by the A&P proceeded rapidly. In 1871, the line was completed beyond Seneca to a junction with the Missouri, Kansas & Texas Railroad's north-south line at Vinita, Indian Territory.

Construction stalled at Vinita as A&P officers tried to persuade federal officials to abrogate a treaty with the Indians and give the railroad its land grant through the Cherokee Nation.

The government sided with the Cherokees in the dispute, and the A&P's end of track remained at Vinita until the Panic of 1873 drove the Atlantic & Pacific into bankruptcy in 1875 and postponed resolution of the dispute.

September 1876 saw final separation of the Pacific from its southwest branch, which was purchased by the newly organized St. Louis & San Francisco Railway Company, soon (and permanently) nicknamed the Frisco. Along with the track to Vinita, the Frisco acquired the A&P franchise and land grant, and for a short time the Golden Gate seemed in sight.

Santa Fe Railway Gains Control

But the Indians successfully continued to block survey and construction work on the line, and the Santa Fe Railway acquired control of the Frisco about 1879. Without the hurdle of Indian Territory to overcome, the Santa Fe was able to use the A&P franchise and most of its land grant to build the Santa Fe's own line from Albuquerque to California.

Construction of the Santa Fe line in New Mexico and Arizona was paid for in part by the Frisco, and although that useless (to Frisco) construction drained the Missouri line's finances somewhat, it did make several extensions in the late 1870s and 1880s to improve its fit into the Santa Fe system.

In the late '70s, Frisco built a line westward from Pierce City to Wichita to connect with the Santa Fe's main line. During the same period, a number of branches were added in the Tri-State lead mining district where Missouri, Kansas and Oklahoma come together.

The early 1880s saw the Frisco headed south from Monett, Mo., with a line through the Boston Mountains of Arkansas to Fort Smith and thence through the Choctaw Nation to Paris, Texas, and a connection with the Santa Fe's line to Dallas and Fort Worth.

Numerous other branch lines in Missouri, Oklahoma, Kansas and Arkansas were completed in the 1880s, as well as one key 1883 addition: the Frisco's own line from Pacific into St. Louis, eliminating the need for trackage rights payments to what had become the Missouri Pacific.

Transcontinental Dream Dashed

Although it remained unable to complete its line through Indian Territory, Frisco was able to extend its trackage from Vinita to Sapulpa, just west of Tulsa, in the early 1880s. The dream of a St. Louis-San Francisco transcontinental had been dashed, but Frisco had begun developing the western reaches of its system into their final form.

Expansion of the Frisco system ground to a halt in the late '80s, and Frisco was finally swept into bankruptcy along with the Santa Fe in the mid-1890s. It was reorganized in 1896 as the St. Louis & San Francisco Railroad Company.

With reorganization came General B. F. Yoakum as general manager; he was to serve the Frisco over the next 20 years as general manager, president and chairman of the board. During his administration Frisco would double in size and turn its eyes from the West Coast to the South.

Yoakum contemplated a system that would span the central section of the country from Chicago and the Twin Cities to the Gulf of Mexico and connect with the Mexican railroad system at the Texas border.

Frisco extended its Oklahoma line from Sapulpa through Oklahoma City to Lawton in the late 1890s, but the real expansion of Yoakum's Frisco came after the turn of the century.

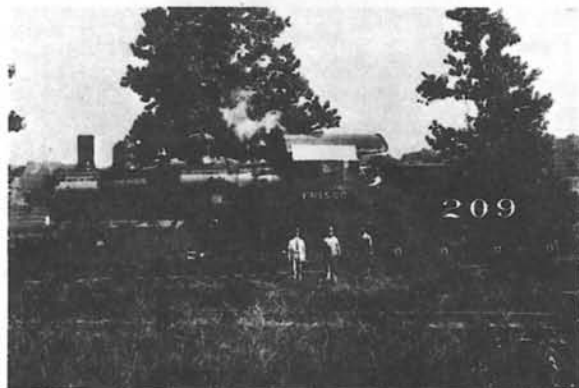
Kansas City and Springfield Linked

Construction of the railroad northwest from Wichita to Ellsworth, Kans. came in 1900, as did a connection with the Union Pacific. The same year, Frisco acquired the 147-mile Kansas, Osceola & Southern Railway to provide a link between Kansas City and Springfield.

Frisco completed its own line to the Dallas/Fort Worth area the next year through construction south from Sapulpa, Okla., to Denison, Texas, and purchase of a 58-mile line from Sherman to Carrollton, Texas, near Fort Worth. But the expansion didn't stop there; also added was a 146-mile railroad south from Fort Worth to Brownwood.

Perhaps the key addition of 1901, however, was the long-term lease by the Frisco of the Kansas City, Fort Scott & Memphis Railway Company's line from Kansas City southeast through Springfield and Memphis to Birmingham, Ala.

Work on that line began shortly after the Civil War



Proud as can be, its crew showed off new Frisco locomotive No. 209 near the turn of the century. Sturdy No. 209 traveled Frisco rails in the vicinity of Birmingham, Ala., for many years.

by the Kansas & Neosho Valley Railroad, which planned a line south from Kansas City through Kansas, Indian Territory and Texas to the Gulf of Mexico.

Chanute Guided Tracklaying

Construction proceeded slowly until 1868, when the K&NV's assets (consisting mostly of rather poor grading for a few miles out of Kansas City) were acquired by the Missouri River, Ft. Scott & Gulf Railroad, and Octave Chanute — builder of the Hannibal Bridge across the Missouri at Kansas City — became the line's chief engineer.

Under Chanute, tracks were laid southward rapidly to Olathe in 1868, to Ft. Scott in 1869 and to Baxter Springs, on the Indian Territory border, in 1870. However, the MR,FS&G arrived too late at the border. The MK&T Railroad's (Katy) line from Kansas City had entered the Territory a few months before, thus winning for Katy rights as the only north-south railroad permitted (across Indian lands.)

The MR,FS&G licked its wounds through the Panic of 1873 until Gen. George H. Nettleton arrived to take charge in 1874. Its race for Indian Territory lost, the MR,FS&G turned southeast and became the Kansas City, Fort Scott & Memphis Railroad.

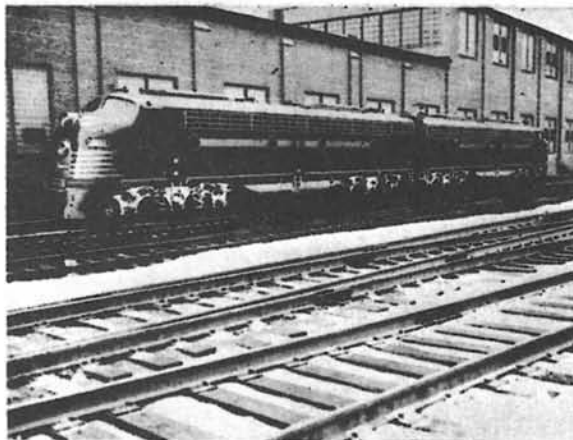
The KC,FS&M completed its line to Springfield in 1881 and was operating through trains from Kansas City to Memphis just two years later. After a two-year pause at Memphis, the KC,FS&M completed its line to Birmingham in 1887 and finished its great bridge (replacing ferry service) at Memphis in 1892.

Gen. Nettleton died in 1896, his plans for further extension of trackage to the Gulf of Mexico frustrated by the Depression of 1893. But the railroad he built fit well into the Frisco system as it began looking south during the Yoakum years.

Yoakum Forges Rail Combine

Yoakum continued to pursue his dream through the first 10 years of this century: the Chicago & Eastern Illinois Railroad was added to the Frisco, and both were combined with the Rock Island Railroad to form what one writer called "a railroad principality."

In 1902, Yoakum added the St. Louis, Memphis &



Passenger locomotives Count Fleet and Gallant Fox sparked under the winter overcast at St. Louis. Frisco passenger diesels were named after famous horses, including Champion, the mount of former Frisco telegrapher Gene Autry.

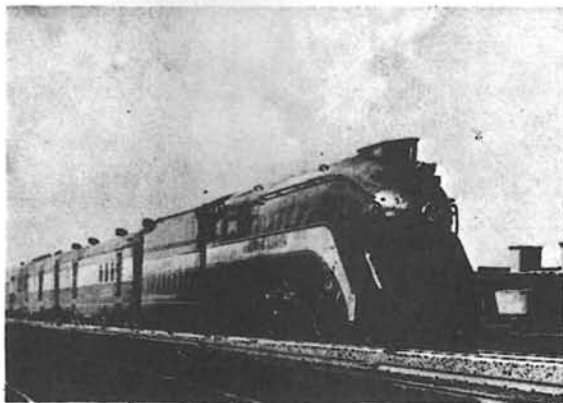
Southeastern Railroad's line down the west bank of the Mississippi from St. Louis to Memphis, planning to extend that line down the west bank all the way to New Orleans.

In 1904, Yoakum added a 233-mile line from Ardmore, Okla., to Hope, Ark., with the expectation of extending it west to Colorado and east to connect with the west bank line, somewhere south of Memphis.

Yoakum added other, shorter feeders throughout the Frisco system: networks of branches in southeastern Missouri and northeastern Arkansas, additional branches in Oklahoma and Missouri, longer feeder lines from Sapulpa through Enid to Avard, Okla., and south from Blackwell, Okla., to Vernon, Texas.

Although the west bank line had yet to be built, Gen. Yoakum added, through construction or control, other trackage from New Orleans west along the Gulf Coast to Mexico and in central Texas between Dallas/Fort Worth and the Gulf Coast lines.

Railroad track was not the only thing built under Yoakum. A new 13-story headquarters office building went up at the corner of Ninth and Olive streets in downtown St. Louis and the largest railroad shop complex west of the Mississippi was built at Springfield to care for the locomotives and freight and passenger cars of the expanding Frisco system.



Frisco joined the streamlining craze of the 1930s with locomotive No. 1026 and the three-car Firefly train, which ran between Kansas City and Tulsa. Locomotive and cars were streamlined at the Springfield shops.

Depression Bankrupts Frisco, Rock

Gen. Yoakum's dream was well on its way to becoming reality when the Depression of 1913 turned it into a nightmare. The Frisco and Rock Island went into bankruptcy, and their relationship was dissolved.

The Chicago & Eastern Illinois was disengaged from the Frisco to go its own way. The Gulf Coast trackage and the Texas lines south of Fort Worth also were split from the Frisco system. The west bank line would never be extended south of Memphis.

The Frisco came out of reorganization with its final corporate name — the St. Louis-San Francisco Railway Company — and a new president, W. C. Nixon.

Nixon worked hard with the remnants of Yoakum's dream, sprucing up passenger service (it was in

1917 that Frisco joined with the Katy to operate the famed Texas Special) and, in general, restoring a leaner Frisco to solid financial footing.

Nixon's plans were delayed, however, when the United States entered World War I and the Frisco, along with the rest of the U.S. rail system, came under federal government control. The experiment with nationalization came to an end in 1920, and the Frisco was returned to private ownership.

The post-war boom years saw more rebuilding of the Frisco under President J. M. Kurn. New locomotives were purchased, passenger and freight car fleets were upgraded, and new train schedules were established.

Trackage Reaches The Gulf

However, the most ambitious undertaking, of the Twenties was construction of a link near Amory, Miss., on Frisco's Memphis-Birmingham main line, to the Gulf of Mexico at Pensacola, Fla. at last fulfilling the dream of Gen. Nettleton by linking his road to tidewater.

It began in 1925 with purchase of 155 miles of track between Pensacola and Kimbrough, Ala. from the Muscle Shoals, Birmingham & Pensacola Railroad. Frisco filled in the gap between Kimbrough and its main line with new construction in 1927 and 1928, and the new line was opened with a grand excursion in the summer of 1928.

Elation at the Pensacola extension was short-lived, as the Frisco plunged into bankruptcy in 1933, after being hit hard by the Great Depression.

No stranger to hard times, the Frisco struggled through the grim years of Depression by constant economy measures, including abandonment of many of the unnecessary miles of branch lines built during the country's earlier bouts of railroad fever.

Survive it did, and Frisco was there when the nation called again at the beginning of World War II. Closing of the East-Coast sea lanes by German U-boats put oceans of Texas and Oklahoma oil onto Frisco rails for movement eastward.

Frisco responded to the challenge by ordering its first new locomotives since the onset of the Depression and by rebuilding a number of slow, freight locomotives into powerful locomotives fast enough to handle the demands of wartime traffic.

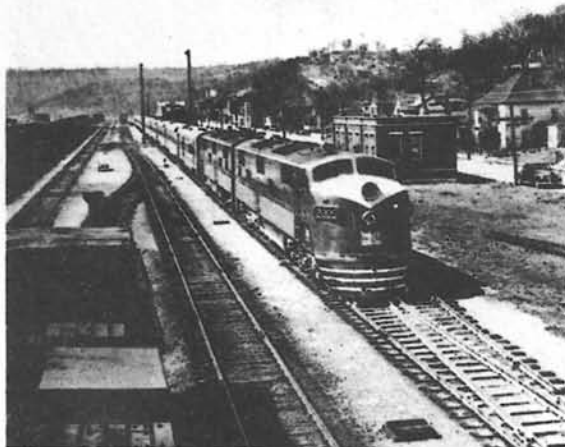
The railroad completed its 14-year reorganization in 1947 and Clark Hungerford was elected president of the Frisco. Under his direction, a railroad battered by Depression and strained by war-time traffic began rebuilding itself, while setting new traffic records.

Streamliners Introduced

With a flourish, the Frisco unveiled streamlined, diesel-powered versions of its Texas Special and Meteor passenger trains in 1947, and it began ordering diesel freight locomotives the next year.

Near the end of 1948, Frisco acquired control of the Alabama, Tennessee & Northern Railroad. Its line from Reform to Mobile, Ala. gave the Frisco access to its second Gulf port, connecting with the rest of the Frisco system at Aliceville.

Frisco built a new freight yard and diesel shop at Springfield, the hub of its system. Once begun,



The streamlined, diesel-powered Meteor pauses at Newburg, Mo., on its run from Oklahoma City to St. Louis. The Meteor and Texas Special were equipped with diesel locomotives and lightweight cars in March 1948.

dieselization continued rapidly. The last steam locomotive was operated on February 28, 1952, making Frisco the first major railroad to become exclusively diesel-powered.

Modernization of the Frisco continued throughout the 1950s. Electronic hump yards were opened at Memphis in 1957 and at Tulsa in 1960. The Frisco also began work on a way to recapture automobile traffic from motor carriers. That work resulted in development of the tri-level auto rack car, now used by railroads nationwide and responsible for the rail industry's recapturing a share of the new automobile and truck transportation market.

Hungerford was succeeded as president by Louis W. Menk in 1962. Menk relocated the bulk of the railroad's offices from St. Louis to Springfield in 1964 and laid the groundwork for consolidating all Frisco train dispatching in one suite of offices at Springfield in 1965. It was the first — and remains the largest — such installation in the country.

J. E. Gilliland was elected president in 1965. He presided over the first new construction by the Frisco since the 1920s: the 32.7-mile Lead Belt Line from Keyesville (on the Salem Branch) to Buick, Mo., to serve a newly opened lead-mining area in south central Missouri.

Passenger Service Ends

Passenger service on the Frisco, sharply reduced in September 1965, ended completely December 8, 1967, when trains 401 and 102 completed their runs between Kansas City and Birmingham.

By the time Richard C. Grayson succeeded Gilliland as president in 1969, Frisco was gaining a reputation as a leader in the development of new shipping techniques. In the 1970s, Frisco went through yet another period of rebuilding and modernization of its plant and equipment.

This era culminated in 1977 with a joint application to the Interstate Commerce Commission for merger of the Frisco into Burlington Northern. Merger finally became effective November 21, 1980, adding to the BN system not only a strategically located railroad, but a proud tradition as well.

"These historical backgrounders were prepared soon after the 1970 merger or 1980 merger in the case of the Frisco. They are reproduced here as originally prepared. Statements of current conditions therefore refer to that time frame rather than the present."