A Condensed

HISTORY

Of The

GREAT NORTHERN RAILWAY

1958

From
Public Relations Department, Great Northern Railway Company, St. Paul 1, Minnesota

THE GREAT NORTHERN RAILWAY

The Great Northern Railway serves a vast, diversified and productive region comprising the Upper Midwest and the Northwest.

On a system 8,300 miles in length, its trains carry freight, passengers, mail and express in the area between the Great Lakes and the Pacific Ocean. The railway operates in Wisconsin, Minnesota, North Dakota, Montana, South Dakota, Iowa Idaho, Washington, Oregon and California, and in the Canadian provinces of Manitoba and British Columbia.

Principal main lines extend from Lake Superior (Duluth and Superior) and the Twin Cities (St. Paul and Minneapolis) of Minnesota to Puget Sound, on the Pacific Coast. These lines serve the grain, potato and sugar beet districts of the Red River Valley, North Dakota, Montana and eastern Washington; the oil territory in North Dakota; the grain and cattle country of Montana, in addition to the oil, copper and lumbering industries of that state; apple and soft fruit districts of the Wenatchee River Valley in Washington, and grain and pea-growing areas elsewhere in that state; and lumbering and fish packing centers of Puget Sound.

Other main lines serve the Mesabi Iron Range in Minnesota, and the forests of South-central Oregon and northern California. The line serving southern Oregon and northern California is connected with the balance of Great Northern's system by trackage rights over lines of other companies, to form a north and south through route on the Pacific Coast and between the Northwest and California.

The Great Northern was founded by James J. Hill, known and remembered as "The Empire Builder." In 1912, upon retiring, he said: "Most men who have really lived have had, in some shape, their great adventure. This railway is mine."

Throughout his years of creating, encouraging and directing, Mr. Hill's creed

was development of the resources of the region the railway served. He knew the railway could not prosper unless its territory prospered. That conception, that objective, has guided the Great Northern throughout its history.

Mr. Hill's "great adventure" began in 1856. Then 18 years of age, he left his birthplace, a farm carved from the forest by his parents near Rockwood, a settlement in eastern Ontario, Canada. He aspired to be a sea captain in Oriental commerce and headed for the Atlantic seaboard. Not finding a seafaring job, he started West to sign on a ship sailing to the Orient. En route he planned to visit a friend at Fort Garry, now Winnipeg, Manitoba.

The last ox-cart caravan of the season had left for the north before he arrived in July, 1856 at St. Paul, head of navigation on the Mississippi River. Mr. Hill had to find work for the winter and did, as shipping clerk in the office of a Mississippi River steamboat company. His career in transportation thus began.

The Minnesota legislature, eager for rail lines in its territory, granted charters as early as 1853 and issued one in 1857 to the Minnesota & Pacific Railroad Company. The latter provided for construction of a line from Stillwater, Minn., on the St. Croix River, to St. Paul, St. Anthony (now Minneapolis) and Breckenridge, and another by way of St. Cloud to St. Vincent on the Canadian border.

There were delays and difficulties. The St. Paul & Pacific Railroad Company acquired the Minnesota & Pacific's rights, completed the first ten miles of construction in Minnesota -- from St. Paul to St. Anthony, now Minneapolis -- and began regular operations on July 2, 1862.

Train equipment came up the Mississippi on barges. The pioneer wood-burning locomotive of the St. Paul & Pacific was named the William Crooks, after the railway's chief engineer. It still is No. 1 on the Great Northern's locomotive roster and is on permanent public exhibition in the St. Paul Union Depot. In 1939 the William Crooks went to and returned from the New York World's Fair under its own power.

Mr. Hill watched and learned as rail expansion progressed slowly. In 1865 he entered the transportation field on his own account, to represent 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 to operate a steamboat service on the Red River of the North.

Success here preceded acquisition in 1878 of the St. Paul & Pacific, and the First Division, St. Paul & Pacific. Mr. Hill interested three men in joining him. One was Norman W. Kittson; 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, later to become Lord Strathcona. The latter two subsequently gained fame as pioneer railway builders in Canada.

The properties were reorganized in 1879 as the St. Paul, Minneapolis & Manitoba Railway Company. Settlers came. By 1881 the Manitoba company operated 695 miles of track. Rail reached west to Devils Lake, N. D. by 1885 and on some north and south branches. Colonization progressed and traffic grew. Montana was reached in 1887 to connect with other lines operating to the Pacific Northwest.

On September 18, 1889 the name of the old Minneapolis & St. Cloud Railroad Company was changed to Great Northern Railway Company. The latter, on February 1, 1890, took over properties of the St. Paul, Minneapolis & Manitoba Railway Company and when 1890 ended was operating 3,260 miles. The Minneapolis & St. Cloud charter, issued in 1856, had been purchased by the Hill group in 1881.

The Rocky Mountains loomed ahead, and beyond, the Pacific. John F. Stevens, a locating engineer, was engaged to determine an easy, low-altitude route over the Rocky Mountains. He found Marias Pass, at the headwaters of the Marias river in Montana. A bronze statue of the engineer as he appeared that wintry day in 1889 now stands at Summit, Mont., 12 miles west of Glacier Park station, within a stone's throw of Great Northern's passing transcontinental trains. Summit, 5,213 feet above sea level, is the highest point on the railway's transcontinental line.

Construction of the Pacific Coast extension westward from near Havre, Mont. began in 1890. The final spike was driven near Scenic, Wash., on January 6, 1893, completing the transcontinental project. By midsummer of 1893 Seattle and the East

were linked by regular service.

Other development in the territory moved forward with main and branch line construction, for success of Mr. Hill's plans depended upon quick and sound colonization. He had to sell his country, to make good after the settler moved in. Only then would more settlers come.

Earlier Mr. Hill had sold and set up one of Minnesota's first threshing machines, handled the first shipment of Minnesota-grown wheat and from brown office paper cut a stencil for the label on the first barrel of Minnesota-milled flour. Now he advocated crop diversification, showed farmers how to improve methods. He imported purebred cattle from abroad and distributed them among the farmers. He laid his rails, then labored to create traffic for his trains.

Subsidies of large grants of land and cash had helped build earlier lines to the Pacific coast. Mr. Hill's venture was unique in that land grants or other government aids were neither sought nor given. Only government lands ever received by Mr. Hill's company were those attached to 600 miles of railway in Minnesota constructed by predecessor companies and acquired by purchase.

Expansion went on. Access was given to what proved to be the large iron ore deposits in Northern Minnesota. Increasing tonnage of ore was moved for the nation's iron and steel. Today Great Northern owns and operates the world's largest iron ore docks, at Superior, Wis. Here ore is loaded on Great Lakes vessels for shipment eastward.

Mileage exceeded 5,000 by 1901. An outlet to and from Chicago was needed. To provide this, Great Northern and the Northern Pacific Railway Company jointly acquired control of the Chicago, Burlington & Quincy Railroad in 1901.

Great Northern and the Northern Pacific in 1905 formed the Spokane, Portland & Seattle Railway Company, which built a line between Spokane and Portland. Subsequently, that company acquired various lines in Oregon by purchase, lease and building.

Utilizing trackage rights, Great Northern began operating trains between Seattle and Portland in 1910.

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In 1912 completion of Great Northern's Surrey cutoff, between Fargo and Surrey, N. D., reduced the transcontinental route by 52 miles.

In 1907 Mr. Hill left the railway's presidency to become chairman of the board. He retired in 1912 from the chairmanship and active direction of the railroad system his genius had created.

On May 29, 1916 Mr. Hill died in St. Paul, the headquarters city of the strong railway he had founded and developed. Thus ended the life span which began with his birth on September 16, 1838 in a log house on the Canadian frontier.

Fame as a transportation genius and "Empire Builder" has largely eclipsed Mr. Hill's other noteworthy accomplishments. He helped build the Canadian Pacific. His addresses on economic topics are well worth reading in the light of later history. He became an authority on agriculture and livestock. Experimental farms and credit facilities for producers were established. Conservation of natural resources was advocated. Many character-building and educational institutions carry on now with the aid of his endowments.

World War I and federal control of the nation's rail lines preceded the 1920-1930 period of extensive improvements to Great Northern's facilities. About $160,000,000 was spent in the decade.

An easier crossing of the Cascade mountains in Western Washington was completed in 1929. This included construction of the Cascade tunnel, 7.79 miles in length and longest railway tunnel today in the Western Hemisphere; relocation of 43 miles of line, and electrification of 74 miles between Wenatchee and Skykomish, Wash. Maximum elevation in crossing the Cascades was reduced from 3,383 to 2,881 feet above sea level. Forty-three miles of steep and winding mountain trackage was replaced by 34 miles of easier, faster, electrified line.

With the completion of a giant ventilation project for the Cascade tunnel in late summer of 1956, the era of electrified operation on Great Northern ended. At that time the 74 miles of main line and 21 miles of yards and sidings then electrified became fully dieselized.

The original line built in the Cascades in 1892 was carried over the summit

on a series of switchbacks, with maximum elevation of 4,059 feet above sea level. In 1900 a tunnel 2.63 miles in length was completed, reducing summit elevation to 3,383 feet. This bore, electrified in 1909, was supplanted by the tunnel completed in 1929.

The Empire Builder, the top transcontinental passenger train of the line, began operating in daily service between Chicago and the Pacific Coast in 1929, soon after completion of the Cascade project. In 1947 and again in 1951 the Empire Builder name passed to a fleet of new transcontinental streamliners. The addition of 22 colorful "Great Domes" to the Empire Builder fleet in 1955 further embellished its long-standing reputation as one of the finest trains in the nation.

The Great Northern system is known as "The Route of the Empire Builder." The basis of this is dual, for it pays tribute to the memory and achievements of James J. Hill and also distinguishes the line's principal passenger train, which traverses the large territory to which Mr. Hill devoted his life.

The first Great Northern train into Klamath Falls, Ore., was operated in 1928, after construction and acquisition of trackage. Construction from Klamath Falls to Bieber, Calif., gave a direct connection, through the Western Pacific, with San Francisco in 1931. Only freight service is maintained on this line.

Increased maintenance and improvement programs were inaugurated. When traffic soared from the low planes of the 1930's to ever-higher levels in the pre-war and war periods, Great Northern was ready for its big task.

The railway was busy as a military supply line in World War II. New yearly all-time records for freight traffic were set consecutively in 1942, 1943 and 1944, and for passenger volume in 1944 and 1945.

In the all-time record freight year of 1944, ton miles (a ton mile meaning movement of a ton of freight one mile) totaled 19,586,780,000. In the all-time record passenger year of 1945, passenger miles (each representing transportation of one passenger one mile) amounted to 1,305,138,000. In 1957 revenue ton miles totaled 17,677,654,496 and passenger miles 450,060,551.

The heavy wartime traffic was handled by a growing number of diesel loco-

motives, as well as oil and coal-burning steam locomotives and by electric motive power in the Cascades area. Improvement of other railway facilities continued also, subject to wartime conditions.

The program of betterments has progressed steadily since the war ended. For example, during 1956 the cash expenditure for property improvements was $22, 908, 723, and in 1957, $35, 111, 298. Of the latter $10, 574, 007 went to fixed property and $24, 537, 290 was invested in new equipment.

The railway in 1944 produced the American railroad industry's first plywood-steel-lumber boxcars, and thereafter constructed 2,000. Each is two tons lighter than earlier conventional steel boxcars.

Great Northern's galaxy of streamlined trains began to take form with the announcement in 1944 -- during wartime -- that five completely new Empire Builders would go into service between Chicago and the Pacific Northwest as soon as they could be constructed.

On February 23, 1947 these streamliners, each of 12 cars and a 4, 000-horsepower, two-unit diesel-electric locomotive, began daily service. Great Northern was the first northern transcontinental system to inaugurate this streamliner service and the first among these lines to offer passenger service on a 45-hour schedule between Chicago on the east, and Seattle and Portland on the west.

These were the first completely new sleeper and coach transcontinental trains built in the nation after World War II ended and since before the United States entered the conflict.

Another completely new fleet of five Empire Builder streamliners -- the third generation under this name -- entered service on June 3, 1951. Each had 15 cars and a 4,500 - horsepower, three-unit diesel-electric locomotive. This train, again presenting the most modern equipment and accomodations, took over the run and schedule of its predecessor. In the summer and early fall of 1955, the addition of four dome cars -- three dome coaches and a full length dome lounge -- to each of the five streamliners brought the ultimate in modernization. Although the present consist of the Empire Builder remains at 15 passenger-carrying cars, it is now

powered by a 6,000-horsepower, four-unit locomotive.

Also on June 3, 1951 the five streamliners that began operating in 1947, plus a sixth completely new train, were given the name of Western Star, and the Western Star became the companion train of the Empire Builder between Chicago on the east and Seattle and Portland on the west. Each Western Star has a basic length of 14 cars, and is drawn by a 4,500-horsepower, three-unit diesel-electric locomotive.

Thus travelers on Great Northern's transcontinental line have their choice of two daily streamliners both westward and eastward. Between Chicago and St. Paul the route of the Empire Builder and the Western Star is Burlington Lines, and between St. Paul and Seattle it is Great Northern. Between Spokane and Portland, cars from both streamliners are a part of connecting trains of the Spokane, Portland & Seattle Railway.

When the initial transcontinental streamliner fleet took over the Empire Builder name in 1947, another famous Great Northern train name was revived -- to be retired once more in 1951.

In 1947 the Oriental Limited name was given to the six conventional-type trains which since 1929 had operated as the first-generation Empire Builder. When the fleet of Empire Builders that was new in 1947 -- the second generation of that train name -- was re-named Western Star in 1951, the latter took over the run and schedule of the Oriental Limited and the latter name was dropped.

Oriental Limited first became a Great Northern name in 1905, when the train began operating as an important link with trade of the Orient in the empire-building era of James J. Hill. New equipment in 1924 added to its reputation as the finest train of the time. In 1931, two years after the first fleet bearing the Empire Builder title went into operation, the Oriental Limited was "honorably discharged" as a name train. The Oriental Limited designation then remained unused until the 1947 revival.

In June, 1950 three additional and completely new streamliners, each of five cars and diesel powered, began operating, all on schedules faster than previously effective. Two carry the International name and together make three round trips daily between Seattle and Vancouver, B. C. The third, the Red River, travels a

round trip daily between St. Paul and Grand Forks, N. D.

Presidents of the Great Northern following James J. Hill have been Louis W. Hill Sr., 1907-1912; Carl R. Gray, 1912-1914; Louis W. Hill Sr., (who was chairman of the Board of Directors from 1912 to 1929), 1914-1919; Ralph Budd, 1919-1931; William P. Kenney, 1932-1939; Frank J. Gavin, (who became chairman of the Board of Directors in 1951), 1939-1951; and since 1951 John M. Budd.

Throughout the years, the railway's Agricultural Development Department has been active in behalf of Great Northern's territory. With agents at various points, the department has furthered diversification, development of new crops and markets, irrigation in areas of inadequate precipitation, conservation and restoration of soil fertility, and other beneficial agricultural practices.

In a closely allied field, the railway's Industrial Department has fostered industrial opportunities and development in the territory. New industries established along Great Northern tracks in 1957 numbered 163, with a total of nearly 3,400 located on the company's properties in the period from 1946 through 1957.

In 1956, in the interests of more effective coordination, these two activities were consolidated in a single Industrial and Agricultural Development Department. Another related function is that of the Mineral Development Department, which is concerned with mineral resources and their development.

The Great Northern is the only railway serving Glacier National Park, in Montana. This third largest national park, which is on the railway's main line, was established by Congress in 1910. The Glacier Park Company, operating hotels and cabin camps in the park, and the Glacier Park Transport Company, providing bus transportation, are both affiliates of Great Northern. The Rocky Mountain goat, often seen by park visitors, is the distinguishing feature of the railway's well-known trade mark.

As 1958 began freight-train cars numbered 45,962, and passenger-train cars 660. Locomotives totaled 477, including 30 steam and 447 diesel-electrics made up of 641 units. Great Northern retired its fleet of 15 electric locomotives in 1956, with the termination of electrified operations through the Cascade Mountains.

The old "iron horse" had all but disappeared from Great Northern by the end of 1957. The few steam engines still carried on the railway's locomotive roster were almost totally inactive during the year. All regularly-scheduled freight and passenger trains are now powered by diesel-electric locomotives. One exception is the self-propelled RDC (rail diesel car) which provides passenger, express and baggage service between Great Falls and Billings, Helena and Butte, Montana.

Extensive use of radio in freight train operation and in switching and yard areas began in 1953, and early 1956 saw the completion of Great Northern's very high frequency radio network between the Twin Cities and the Pacific Coast. Radio is now found on passenger, freight and yard engines, on cabooses, on snow-fighting and other maintenance equipment, and on supervisors' rail cars and automobiles.

Completion of centralized traffic control projects authorized for 1957 boosted the railway's CTC mileage to 287 by the end of the year; and at the same time the mileage of continuous welded rail ("ribbon rail") was increased to 122.

Construction of Great Northern's largest freight classification yard, at Minot, North Dakota, was begun in 1955 and completed in the early Fall of 1956. This ultra-modern electronic "push-button" yard, built at a cost of 6-1/2 million dollars, was dedicated on October 12, 1956, and named in honor of Frank J. Gavin, Great Northern's seventh president.

Freight piggybacking, or trailer-on-flat-car service, was inaugurated on the Great Northern in 1954 and has been substantially expanded since that time.

The railway had an average of 24,968 full-time employes in 1957. Total payroll for the year was $136,381,881, while taxes were $33,385,948. Net income for 1957 was $26,643,515. And at the close of 1957 the company's 6,078,566 shares of capital stock were owned by 38,158 stockholders.

The diversified character of the territory served and traffic carried is revealed in the following analysis of Great Northern gross freight revenues by commodity groups in 1957: Products of agriculture, 32.0 per cent; animals and products, 2.0; products of mines, 19.2; products of forests, 14.4; manufactures and miscellaneous, 30.2; all less than carload freight, 2.2 per cent.

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