THE NP STORY

MAIN STREET OF THE NORTHWEST

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The NP Story . . .

Northern Pacific's first locomotive

The Beginning

To paraphrase a relatively recent truism about the railroad industry, "if the Northern Pacific railway did not exist, someone would have to invent it." That is, the building of the first northern transcontinental railroad was as inevitable as the settling and development of the Northwest; indeed, was a necessary prelude to it.

As early as 1834, scarcely four years after the opening of the first railroad in the United States, a few visionaries began advocating a line across the northern half of the country. This idea gathered momentum but slowly over the next few decades to reach its peak amid the restlessness and weariness of the final year of the Civil War, when Congress at last granted a charter. This charter, signed by President Lincoln on July 2, 1864, authorized

construction of a railroad from the head of the Great Lakes to Puget Sound.

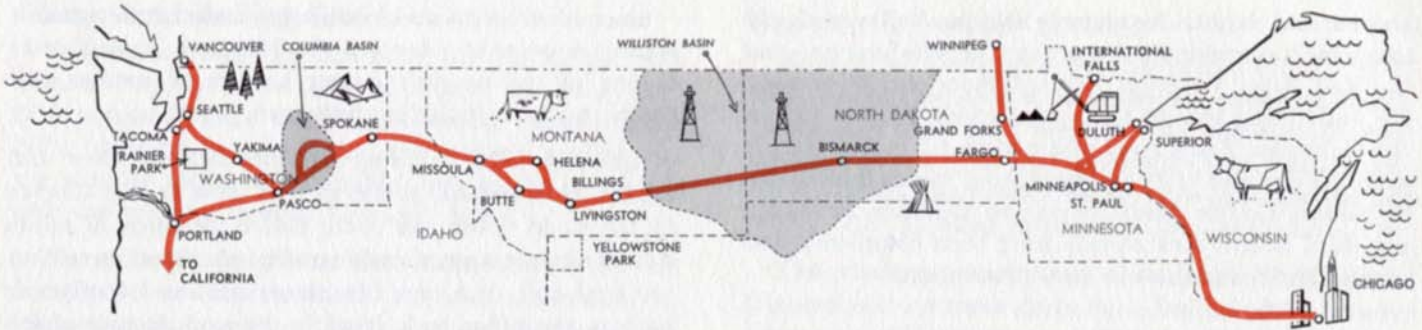
General William T. Sherman had pointed up the need for such an artery of commerce when he told Congress, "The Northern Pacific must be built, both as an economic and military necessity. The West can never be settled, nor protected, without the railroad."

Actual construction got under way in 1870 near the present town of Carlton, Minn., not far from Duluth. The next year found construction crews at work in the Pacific Northwest, too, building a line from Kalama to Tacoma, Washington Territory. Then, after 13 years, years filled with Indian Wars, political and financial crises, long winters and unforeseen construction difficulties, the lines from east and west were joined in a historic ceremony at Gold Creek, Mont. The date was Sept. 8, 1883.

With this culmination of nearly a half century of effort, all the benefits predicted for the Pacific Northwest were soon realized. Settlers began moving westward in earnest, and within seven years after NP had completed its transcontinental line, the entire tier of Northwest territories had gained sufficient population to achieve statehood.

The Northern Pacific Today

From that auspicious beginning, Northern Pacific has grown until today it operates a 6,800-mile network of track in seven states and Canada. Its main line—aptly labeled "Main Street of the Northwest"—runs westward



from the Head-of-the-Lakes ports of Duluth and Superior, as well as from the Twin Cities, through North Dakota, Montana, Idaho, Washington and Oregon to Seattle, Tacoma and Portland. The accompanying map shows the principal cities served.

Principal Items of Traffic

Northern Pacific serves the forest products and mining industries of Washington, Montana, Idaho and Minnesota; frozen food and fish industries in Washington; agriculture throughout its territory, including the ir-

rigated and highly developed Yakima Valley and the vast new Columbia Basin project in Washington, and the Red River Valley of North Dakota and Minnesota. NP rails bring service to approximately 50 per cent of the Columbia Basin area, where some 1.2 million fertile acres are destined to be irrigated from waters impounded by Grand Coulee Dam. Irrigation facilities for about one-third of this area already have been completed, and about 350,000 acres are in crop production.

Products which the NP transports in large volume from these areas include grain, fruits and vegetables, sugar beets and their refined products, dry beans and peas and, of course, potatoes. Livestock, too, is big business in the Northwest; thus, animals and animal products constitute a valuable source of traffic.

Since it serves an area containing some of the greatest timber reserves in America, the Northern Pacific ranks as one of the nation's largest haulers of lumber and forest products, including pulp and paper.

Although today's mining activities lack the lustre and adventure of mineral strikes such as those at Last Chance Gulch, Gold Creek and Alder Gulch, products of mines now constitute a more sizable traffic item. Most important are coal and iron ore, but transportation of minerals such as phosphate rock (used in the manufacture of fertilizers) is increasing.

The railway also transports a great volume of manufactured products as a result of a growing population, an expanding economy and increased industrial development.

Power and Rolling Stock

Locomotives and cars that move all this freight have come a long way since those early days, too. More than 600 powerful diesel-electric locomotive units handle NP's traffic on fast schedules, and modern freight cars are steadily rolling off assembly lines in the company's own car-building shop at Brainerd, Minn.

The railway's freight car fleet includes standard and wide-door box cars, insulated cars with mechanical refrigeration and heating, "D-F" cars and insulated cars with load protection devices to keep lading "Damage-Free," NP-designed stock cars with screens and adjustable shutters, multi-level rack cars for transporting automobiles, boats, farm implements, etc., and many others designed for specialized service.

Superb Passenger Service

No story of Northern Pacific operations could be complete without mention of its renowned passenger service. It has been more than 90 years since the first NP train carried mail, express and passengers into Dakota Territory, and it was more than 60 years ago that the first North Coast Limited raced across the Northwest.

The modern, streamlined Vista-Dome North Coast Limited still operates daily on a fast schedule between Chicago, the Twin Cities and Spokane, Portland, Tacoma and Seattle. One of the nation's top passenger trains, it features Vista-Dome coaches and all-room Pullman sleepers, the unique Lewis and Clark Traveller's Rest buffet-lounge and NP's famously-good dining car meals. Alone among the northern transcontinentals it provides Stew-

ardess-Nurse service and all-room Slumbercoaches at slight additional cost to coach-class passengers.

Modernization

A quiet revolution during the past two decades—a revolution that is still going on—has brought extensive modernization to virtually every phase of Northern Pacific's operations.

NP was a pioneer among western railroads in the use of radio communications in train operations—end-to-end of train, train-to-train and dispatcher-to-train—in the installation of a direct-distance-dialing telephone system and, more recently, the addition of microwave to one of the most up-to-date private communications systems in the world.

Spanning half of the nation, NP's telephone system links the company's offices between St. Paul-Minneapolis and Seattle-Tacoma-Portland. Microwave is being installed over portions of the line to be integrated with the dial system and will be extended gradually over the entire railroad.

Other NP ventures into automation involve accounting, centralized traffic control (CTC) and electronic freight classification. Mechanization of accounting operations has been carried out, including the installation of an IBM 1410 magnetic tape data processing system. CTC, by which a single operator can direct train movements over many miles of line from a remote control panel, has been installed on more than 400 miles of line. It serves to expedite traffic, and it greatly increases track capacity so that, in many instances, multiple tracks are unneces-

sary and may be removed. Ultimately CTC will be installed over some 2,000 miles on the system. Automation has been applied to the sorting and classifying of freight cars for further movement at NP's electronic classification yard at Pasco, Wash. Here a switch engine is required only to push a car or cars to a "hump," after which gravity supplies the needed power. Then, from a central control tower, the speed and direction of cars to any of numerous tracks are electronically controlled by levers and push-buttons only. The yard handles increasing traffic from the Columbia Basin with efficiency and dispatch.

Other sights and sounds of railroading on the Northern Pacific have been changed, too. Take the familiar clickety-clack of wheels rolling over rail joints. It is conspicuously absent on more than 485 miles of the company's main line. NP was one of the first American railroads to make extensive installation of continuous welded rail, which almost completely eliminates rail joints and reduces maintenance costs. More of these quarter-mile rail lengths are being added each year.

During World War II and the decade which followed, the Northern Pacific carried on an extensive rehabilitation program which saw new rail laid and heavy ballast applied equivalent to complete rebuilding of the main line from St. Paul to Seattle and Seattle to Portland. The company eliminated or reduced more than 300 main line curves, replaced bridges and tunnels, built new shops and freight houses. And the improvement program continues as new methods and new equipment are developed.

Highway Operations

A wholly-owned subsidiary, the Northern Pacific Transport Company, was organized in 1932 to provide highway freight and passenger service as a motor common carrier. The move was made to help retain traffic which was being taken over by truck and bus lines, to provide substitute service for unprofitable branch line rail operations, and to supplement rail service at many points.

Vehicles of the Transport company, authorized to operate over about 5,730 miles in eight states, travel more than 6½ million miles annually. Activities of this company have been expanded to provide additional service for the railway, such as pickup and delivery of merchandise at principal main line points and handling trailers used in NP's piggyback service.

The railway handles trailers on flat cars (TOFC) to most of the important points on its system, and substitute highway service by the Transport company provides delivery to additional stations. Piggyback trailers are interchanged with all connecting carriers at the Twin Cities and with Southern Pacific railway at Portland for California points. As piggyback business continues to expand, NP keeps pace by adding new equipment to its fleet of trailers and cars.

Affiliated Railroads

The Northern Pacific and Great Northern railways each have owned 48.59 per cent of the common stock of the Chicago, Burlington & Quincy Railroad since acquiring control in 1901. Some 11,000 miles of track are oper-

ated by the Burlington in 14 states, providing access to the important Chicago and St. Louis gateways to the East and Southeast and to Denver in the West. In addition, the CB&Q owns nearly 75 per cent of the Colorado and Southern railway which, in turn, owns all of the capital stock of the Fort Worth and Denver railway. Combined trackage of these two companies serves southwestern Colorado, a portion of New Mexico and a diagonal belt across Texas, including Dallas, Fort Worth, Houston and the important Gulf port of Galveston. Burlington dividends contribute substantially to Northern Pacific's "other income."

In 1905, the NP and GN jointly built the Spokane, Portland and Seattle railway, which operates 1,000 miles of road in Oregon and Washington. The SP&S and its three Oregon subsidiaries constitute an important feeder line, originating large amounts of lumber and other forest products.

Track Rental Income

Because Northern Pacific was the first northern transcontinental railroad to be built, its lines are strategically located, and important segments are jointly used by other railroads. For such use the NP receives rental income of more than $3 million annually. Rental credits have been an important and stable source of income for Northern Pacific for more than 50 years.

Land Holdings

From its original land grant, the Northern Pacific has retained mineral rights on some 8.25 million acres of land,

of which about 2.2 million acres is still owned outright. Most of this acreage is concentrated in three states, with approximately 5 million acres in Montana, 1.2 million acres in North Dakota and 1.3 million in Washington. Some 3 million of Northern Pacific's acres represent approximately 6 per cent of the United States portion of the oil-bearing Williston Basin.

Oil Development

Although Northern Pacific has had oil production in Wyoming and Montana for many years, the first discovery on NP land in the Williston Basin didn't occur until July 13, 1951, near Richey, Montana. The following year the company established an oil development department at Billings and adopted a broad, flexible policy which had as its primary objective the early exploration of the company's oil and gas rights. As part of that policy, in some instances, straight leases have been signed with a negotiated royalty. Other agreements provide for a royalty plus a working interest after development expense has been absorbed. Joint exploration projects involving geological and geophysical evaluations have also been undertaken.

In still other cases, Northern Pacific actually participates in the drilling of wells and pays its proportionate share in accordance with specific contractual arrangements made with the operator. Earnings from oil have become important in augmenting the company's sizeable "other income."

Timber Resources

The railway owns almost 1.4 million acres of timber

and timber-growing lands in five northwestern states. Applied forestry research and sustained-yield management are proving that timber stands can be both used and perpetuated. Under such management, the company has established 14 tree farms comprising about 690,900 acres in Washington, Idaho and Montana. Northern Pacific has thus committed itself to maintain these specific land areas for forest-growing "crops;" to provide protection against fire, disease and other sources of injury, and to harvest timber in a manner that insures maximum continuous growth.

In 1953, the railway initiated an aerial survey to ascertain more accurately its inventory of timber resources. To implement the survey, the company acquired an airplane and an aerial camera and set up a photo laboratory. By using aerial photographs, supplemented with field sampling, the species, age, density and location of all timber are determined. This information is compiled on IBM cards. Detailed maps, drawn from the photographs, assist in layout of logging plans, determine fire protection needs, and furnish a valuable aid for management planning.

Iron Ore Properties

The NP owns iron ore and taconite properties on both the Mesabi and Cuyuna ranges in northern Minnesota. Nearly all of the company's holdings on these ranges have been leased to various mining companies, with all of the production now coming from the Mesabi range. Royalties from these properties have been an important source of income for many years. Although high grade reserves are being rapidly exhausted, new and expanding plants

for processing taconite (low grade iron ore) assure a continued progressive mining industry in Minnesota for many years.

Coal and Lignite

One of the potentially greatest mineral resources of Northern Pacific's fee-owned lands and mineral reservations is the vast tonnage of lignite and sub-bituminous coal in western North Dakota and eastern Montana. The company also owns bituminous coal lands in Washington and Montana. Markets for coal in NP territory are once again on the increase. Since most thermal generating stations in the United States use coal, the outlook for NP coal is improving steadily as electric power requirements increase. Other uses for coal that may involve considerable tonnages in the future are for synthetic liquid fuels and petrochemicals.

Other Mineral Resources

Industrial minerals, many of which are found on NP lands, are of increasing importance as the population and industry of the territory continue to grow. Important deposits of many industrial minerals are known; e.g., phosphate rock, from which fertilizers are manufactured. To date, there has been no significant production of nonferrous metallic minerals on NP lands.

Northern Pacific employs a staff of geologists and mining engineers who work toward development of the mineral industry in NP territory. The program of the Mineral Development Division is aimed at full utilization of mineral raw materials in NP's traffic area and includes use of advanced tools and techniques in geologic evaluation and preparation of commodity reports. NP lands

having potential for mineral deposits are open to outside exploration and leasing also.

Industrial Development

Industrial growth in the Northwest and Pacific Northwest has been spectacular. New development of existing natural resources has resulted in the location of new industries and the expansion of many industries already located along the "Main Street of the Northwest."

Northern Pacific's Properties and Industrial Development department, which maintains offices in St. Paul and Seattle, is actively promoting development of areas adjacent to its lines. Every effort is made to attract industry to the railway's territory, with promotion emphasizing desirable sites on trackage. In recent years, the company has opened up choice new industrial tracts at strategic points, and more than 100 new industries are being located alongside NP tracks annually.

The Future

With its rich agricultural empire steadily growing more diversified and increasingly important to the national economy, and with its vast natural resources still to be fully utilized, the Northern Pacific West looks forward with great confidence to further development and growth.

The Northern Pacific's traditional policy is one of providing the best possible transportation service and helping in every way to promote the development and growth of communities along the "Main Street of the Northwest."

Route of the *Vista-Dome* NORTH COAST LIMITED

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