

# REFERENCE PAPERS

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# THE CANADIAN NATIONAL RAILWAYS

The history of the Canadian National Railways goes back 128 years, to 1836, when the first railway service in Canada was begun between Laprairie and St. John's, Quebec. The CN came into being because the vision of Canada's great railway pioneers of the nineteenth century and early twentieth century far exceeded the resources and traffic available to finance the great transcontinental systems that were being built.

When, with the outbreak of the 1914-1918 War, foreign sources of financing dried up, the great Western roads were just being completed. Bankruptcy threatened, and the Government, to prevent embarrassment to the country's financial institutions and its credit position abroad, took over ownership and operation of the railroads.

#### Birth of the CN

The Canadian National Railways, as it is called today, came into being in the autumn of 1922, its foundation being based on the recommendations of a Royal Commission that advised the Government as follows: "That the whole of the Dominion Railways be operated by the trustees as one united system, on a commercial basis, under its own politically undisturbed management, on account of and for the benefit of the people of Canada".

In that first year, the managing board of the new company had to face a loose agglomeration of five separate railroads, with 22,000 miles of track, built for competition, much of it overlapping. The task ahead was that of unifying and integrating this huge, unwieldy system, rebuilding the sagging morale of the thousands of employees inherited from the old systems, and acquiring prestige to match that of the long-solvent Canadian Pacific Railway.

Sir Henry Thorton, the man chosen to head the new company, was American by birth and British by adoption, with a phenomenal reputation for the successful, efficient operation of railroad systems. His personality dominated the first decade of the CNR's existence, and his confidence in the eventual success of the publicly-owned company proved to be justified.

In five years, Sir Henry's policies succeeded in vitalizing and integrating the system, giving it a reputation for efficient service and showing its capacity to produce a substantial net revenue. There were other noteworthy accomplishments in those days as well. CN pioneered radio broadcasting in Canada, and developed and operated the first diesel locomotive to be used in North America It started a West Indies passenger service, built Jasper Park Lodge and other hotels and laid out the first plans for a Montreal terminal development.

The company survived, though only just, the financial and business crisis of the depression, but redeemed itself by its outstanding service during the Second World War. In 1944, operating revenues were three times those of the worst depression year. The formidable task of the CN had been accomplished in a country with the lowest freight rate per ton-mile in the world, except for Japan. Today the system stands as a monumental tribute to the vision and efforts of its pioneers and its early and present-day management. CN is the biggest business enterprise of its kind on the continent and Canada's largest business and employer and purchaser of materials and supplies. The company's assets are valued at more than \$3 billion, putting it on a par with the world's biggest chemical corporation, Dupont.

## Modernization Programme

Canadian National became the first major Canadian railway to be dieselized, and now boasts a fleet of more than 2,100 diesel-electric locomotives. The system also has more than 100,000 freight cars of all classifications, as well as 2,843 units of passenger equipment.

Practically all the CN's main transcontinental trackage is now under Centralized Traffic Control, which permits its greater use and adds to the already enviable safety record of railway transport.

Great strides in modernization have been made in the marshalling of trains with the opening of three new electronic freight-classification yards (also known as hump yards) in Moncton (New Brunswick), Montreal and Winnipeg (Manitoba). A yard now under construction at Toronto is expected to be fully operational by early 1965.

#### Variety of Services

In all, Canadian National maintains and operates more than 34,000 miles of track, over 1,100 miles of which is in the United States. In addition, CN operates six car ferries on Canada's East Coast, 13 coastal steamers round Newfoundland and Labrador and a luxury-cruise ship up the West Coast of Canada to Alaska. To complement these services, CN maintains a large truck fleet, and this, as well as its "piggyback" fleet (trailers on flat cars), enables the company to provide door-to-door pickup-and-delivery service - a complete transportation system.

Canadian National's communications arm, CN Telecommunications, operates a network of microwave systems, telegraph, telephone and Telex lines that span the nation and link Canada with the world. In 1962, CN completed a 1,200-mile microwave link that stretches from Grande Prairie, Alberta, to the Yukon-Alaska border.

This year, jointly with Canadian Pacific Telecommunications, CNT is building a microwave network more than 3,000 miles long from Montreal to Vancouver.

Also under construction by CNT is a 1,020-mile telephone-pole line running the length of the Mackenzie River from Hay River, Northwest Territories, to Inuvik in the Arctic Circle. When completed in 1965, the multi-channel system will provide simultaneous long-distance telephone, telegraph, teletype, Telex, air operation control and weather communications to Fort Simpson, Wrigley, Fort Norman, Norman Wells, Fort Good Hope and Inuvik. In addition, Aklavik, Fort McPherson and Arctic Red River will be linked to the system at Inuvik by VHF (very-high frequency) radio communications.

No stranger to the Northwest Territories, CNT now has local dial telephone exchanges at Fort Simpson, Norman Wells and Inuvik, in addition to a microwave and pole system linking Yellowknife and other communities round Great Slave Lake with "the outside" <u>via</u> Hay River. CNT is also constructing a 554-mile tropospheric scatterwave communications system from Hay River to Lady Franklin Point on Victoria Island in the Arctic.

The railway owns many large central areas in the major Canadian cities. To capitalize on these, CN in recent years has offered them to private developer. The most spectacular of CN land-development projects is Place Ville Marie in Montreal, a giant complex that includes the 42-storey Royal Bank of Canada cruciform building, an underground shopping mall and parking garage, restaurants and theatres. Other large projects are under way in Moncton and Campbellton (New Brunswick), London (Ontario), Edmonton (Alberta), and Saskatoon (Saskatchewan).

To keep pace with modern business methods in the areas of improved statistical data, CN now has a system-wide data-processing network. An IBM 7070 computer at Montreal is the heart of the network, supported by six satellite computers known as IBM 1401s -- one each in Moncton, Toronto, Winnipeg and Edmonton, and two at Montreal. The computer network speeds the flow of information from across the country for way billing, car tracing, revenue accounting, sales statistics, operating statistics, operations research, equipment control and payroll preparation.

The scope and size of its activities make a company like CN particularly aware of its role in the national development and of the importance of remaining flexible in the highly competitive field of transportation.

#### Revenues

Canadian National made noteworthy achievements in 1962. The company showed a surplus on operations of \$13.6 million, but interest charges of \$62.5 million on long-term debt resulted in a deficit of \$48.9 million. This, however, was an improvement of \$18.4 million over the 1961 deficit.

Operating revenues increased during 1962 over the year before, but, on the other hand, operating expenses rose, owing principally to additional wage, pension and depreciation costs. The 1962 freight revenues increased some \$15 million over those for 1961, and freight tonnage improved more than three per cent owing to increased movement of manufactured goods, particularly motor vehicles, and mining and forest products.

A downward trend in revenues from passenger services, which had persisted since late 1957, was reversed and earnings increased over the 1961 level.

The general across-the-board improvements during 1962 were a reflection of CN's aggressive sales campaigns in all services and the introduction of new facilities services, equipment, rates and methods that enabled the railway to keep up with customer requirements.

## Recent Service Extensions

In 1962, an "aquatrain" service, with barges carrying freight cars, was established between Alaska and Prince Rupert, B.C., cutting hundreds of miles and many hours from existing routes. A fast freight train from Vancouver to Toronto and Montreal was inaugurated to better the schedule by 24 hours. Tests were conducted with refrigerated and dry-cargo containers with an aim to improve the transfer of goods between trains and ships in the service between the mainland and Canada's most easterly province, Newfoundland. Two plans of piggyback service were broadened and a third inaugurated between Halifax and Victoria. Incentive freight rates, to encourage carload traffic, were extended to points in Northern Ontario.

Several new passenger services were introduced, including new exterior and interior color schemes for CN's passenger-equipment and passenger-services centres designed to expedite the issuance of reservations and tickets. A new fare plan, which cut travel costs by as much as 50 per cent, was introduced between Montreal and the Maritime Provinces; this plan was extended in 1963 to include Newfoundland, Northern and Southwestern Ontario, CN's transcontinental service and the four Western provinces. In addition, the plan was modified, with fare savings ranging upwards of 58 per cent. The schedule of the "International Limited", operating between Chicago and Toronto, was improved by one hour and 45 minutes in 1962, and faster railiner schedules were established in Nova Scotia and New Brunswick.

#### New Construction

Continuing to play its part in the development of the country, CN pushed forward with the construction of the 430-mile Great Slave Lake Railway. Starting near Roma, Alberta, and leading to Pine Point Mines in the Northwest Territories, the new line will, in addition to general transportation, bring to market the products of the huge lead-zinc deposits of the region. Construction progress on the 60-mile line to the Matagami Lake zinc and copper deposits in northern Quebec continued in 1962 and culminated with the opening of the line in October 1963.

CN's physical assets were improved during the year with the opening of the \$23-million Symington Hump Yard at Winnipeg, a flat-type marshalling yard at Calgary and a new yard at Cornerbrook, Newfoundland.

The railway's rolling stock was bolstered by the purchase of 150 trilevel automobile transporters, 210 cylindrical aluminum-covered hopper cars, 612 box-cars and 140 steel-covered hopper cars. In addition, 600 box-cars, flat-cars and gondola cars were modified to suit new types of traffic.

Across the country 580 miles of track were relaid, and in Western Canada 452 miles of roadbed were upgraded by applying high-quality ballast. More than 280 miles of track were placed under Centralized Traffic Control, and a system-wide programme of train-radio installation neared completion.

Two new vessels went into service, one a cargo ship and the other a car ferry.

To provide a more extensive transportation service, integration of all express and freight non-carload merchandise services progressed during 1962, particularly at key points in Ontario and Quebec.

New accommodation facilities and refurnishing of various CN hotels continued during the year, leading up to a five-year modernization programme, which started in 1963, for the nation-wide hotel chain.

Canadian National's faith in the future has been manifested by an investment in new facilities and equipment of more than \$2 billion since 1950. This amount has been spent on modernization and technological innovation, including complete dieselization of motive power, new shops and electronic classification yards across the CN system. The railroad has also carried out a system-wide reorganization of company administrative policy to streamline decision-making, and is well advanced in a complete face-lifting through visual redesign. New research and marketing methods also have been introduced.

The record of CN's achievements -- including its active and continuing role in resource development, its improvements and innovations in new technology and services, coupled with its fresh approach to sales, marketing and research methods -- testify that the railway is being imaginative and aggressive in the transportation market, confident that it will continue to play an important part in the country's economy and development.