



## *Transportation in Canada*

*The reliable movement of goods and people is crucial to Canadian life; it always has been. Here we consider the role played by the transportation industry in creating a nation and leading it on to greater things . . .*

□ The most striking thing about Canada is its size. It takes up one-fifteenth of all the land on the planet. A child in a third world nation seeing a map of this country for the first time might naturally conclude that it must hold a large proportion of all the people in the world.

Actually, it has the lowest ratio of people to land of any developed nation. Moreover, as the child might note, the population is distributed very unevenly. Most of the circled dots on the map denoting cities appear along the water divisions marking our border with the United States in the East; the few in the West are spaced far apart from each other. The smaller dots for towns and villages are sprinkled like pepper over the empty spaces from the Yukon and Newfoundland.

Yet, on closer examination, the child might discern a kind of pattern to them. Nearly all are next to water in one form or another — oceans, rivers, lakes. And nearly all are connected with lines representing roads and railways. In that pattern lies the answer to how a nation whose people are scattered so thinly is able to exist.

The answer is, in a word, transportation. No country has ever been more dependent on the means of moving people and goods. Canada is an interprovincial common market, and an interchange of products from one region to another goes on constantly. As a leading trading nation which exports one-fifth of its gross national product, Canada has a pressing requirement to move its produce to international markets. As individuals, Canadians rank next to Americans as the second most mobile people in the world.

The national need for transportation is matched only by the difficulty of providing it. Our geography is daunting in its composition as well as in its immense scale. The bulk of the country is flanked by large islands with no bridges to the mainland — Newfoundland, Prince Edward and Vancouver Islands. The continental mass itself is plagued with all kinds of adverse conditions — near-impassable mountains, treacherous muskeg bogs, innumerable rivers to be bridged, forests as dense as jungles and barren tundra.

Another harsh fact of geography is that this is a northern land, with one of the world's coldest and stormiest climates. Our long winters play havoc with the operation of ships, trains, trucks and planes. But nature can attack transportation in Canada in any season. Floods, landslides, forest fires and blinding thunderstorms are among the hazards Canadian transportation operators face.

The distance and difficulties combine to make Canadian transportation among the most expensive in the world, eating up an estimated 12 per cent of our gross national product. It is so costly that governments have seen fit to subsidize it ever since the early 1800s, when the first major public works expenditures in Canada were made on canals. Because great sums of public money must be lavished on it, transportation is a fundamental political issue. Some of the most memorable controversies in Canadian parliamentary history have erupted out of government support for transportation.

The influence of transportation on our politics, economics and society has been such that it

almost forms the framework of Canadian history. In fact, it played a dominant role in the lives of people here before the country's history was ever recorded. In their way of life, the original inhabitants of Canada were at least as dependent on transportation as those who came after. Their need gave rise to a tradition of ingenuity in transportation that flourishes to this day.

From the very outset of settlement in Acadia and New France, Indian transportation techniques were essential to the settlers' survival. Wheeled carts were useless in a land awash with lakes and rivers and covered with snow for much of the year. So the settlers adopted the canoe, the snowshoe, toboggan and dog team to move themselves and their provisions. New France had been in existence for a century and a half before the first crude road was built between Montreal and Quebec City. In the meantime, New Frenchmen had ranged across North America by canoe from Hudson's Bay to the Gulf of Mexico.

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### *The steam engine opened the road to Confederation*

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In a way, the birch bark canoe was responsible for the physical dimensions of the nation in which we now live. With its lightness and portability, it could be floated and carried to places where other boats could not go. Without these qualities, great expanses of the land would have been inaccessible to the men who drew our first maps.

Using canoes, some of which could carry up to five tons, the North West Company in the early 1800s developed a sophisticated distribution system for furs and trade goods which ranged clear across the continent and beyond the Arctic Circle. Wherever the company went in search of new trading areas, it claimed British — later Canadian — sovereignty over them. "While in the East pioneers had scarcely even occupied the fringes of Upper Canada, the North West Company was staking out the western borders of the future Dominion of Canada," historian Donald Creighton wrote.

This situation was not to last for long. As settlement spread in Upper Canada in the 1820s, a demand arose for a shipping route on British North American territory which would give the colony access to the Atlantic Ocean via the St. Lawrence

River. To provide this outlet and to connect the various parts of the province, canals were built.

Elsewhere, British North Americans were shaping Canada's future as a global trading nation. A thriving ship-building industry grew up around the timber resources of the Maritime colonies. Merchants in the region opened a trade with the West Indies which eventually extended around the world.

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### *The building of the CPR was more than an engineering achievement*

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By the 1850s the ship-building and sailing industries in the Maritimes and Lower Canada (Quebec) had grown to the point where British North America boasted one of the world's largest merchant fleets. But the demise of the wooden sailing ship had long been on the horizon: in 1833 the *Royal William*, built in Quebec City and owned by Nova Scotia shipping magnate Samuel Cunard, became the first vessel to cross the Atlantic entirely under steam power.

The application of the steam engine to long-distance ground transport set Canada on the road to its political destiny. Although the Maritime and Canadian provinces had been joined by a rough-and-ready road system for some years, there was little hope of fusing the scattered elements of British North America into a viable economic unit until the advent of railway. The rail-building boom of the 1850s marked a sharp dividing-line in our history. "Canada in the first half of the 19th century was a child of her waterways; in the second half she became no less truly a child of her railways," as historian Arthur Lower wrote.

The building of a railway as a bridge between the two settled parts of the country was the linchpin of the Confederation pact of 1867. Financed by the new Dominion government with British government aid, the 1,200-kilometre Intercolonial Railway between Halifax and Quebec City went into service in 1876.

Having brought New Brunswick and Nova Scotia into Confederation with the promise of a railway, Prime Minister Sir John A. Macdonald did the same with British Columbia. The West Coast colony became a province in 1871 on the condition

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that a railway would be in place to give it an outlet to the rest of the country within 10 years. Canada then had a population of 4 million and revenues of less than \$20 million a year, yet the government promised \$25 million in cash and 25 million acres in land to the private syndicate that would build the railway. Much of the country through which it would pass was unbelievably treacherous and rugged. "In 1871 the decision [to build the line] must seem magnificently bold or just plain silly," in Arthur Lower's words.

But the stakes were worth the gamble. The railway was considered crucial to preventing the Canadian West from being annexed to the United States. When the last spike on the Canadian Pacific Railway was driven 100 years ago this November 7 (the Pacific scandal which had temporarily thrown the Macdonald government out of office had set the project back almost 10 years), it was hailed as the climax of a magnificent engineering achievement. It was an even greater political achievement. "In the view of those who thought of Canada as a real entity — and there were few scoffers now — the work of Confederation had been consummated," W.S. McNutt wrote of the event.

The railway virtually created the modern Canadian West. Trains brought in masses of settlers to form the nucleus of the present population. Once they were settled (often on land bought from the CPR) trains carried off their produce to the markets of the world. Towns and cities grew up practically overnight along the right-of-way. Branch lines were built to tap agricultural, mineral and forest resources.

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### *Bush pilots raised a vision of an exciting new frontier*

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The domination of a single private company over a large part of the country in its formative years left a legacy which is still present in Canadian politics. Westerners began complaining early that the railway was an instrument of eastern exploitation. The railway benefited from high tariffs to carry Central Canadian manufactured goods to a captive western market. Its freight rates on goods moving in and out of the region were said to be designed to keep the West economically subservient to the East.

The Canadian Pacific monopoly was breached by the construction of two more transcontinental rail lines early in this century, conferring on Canadians the distinction of having more trackage per capita than any other people. That distinction proved to be a costly one when both new railways sank into insolvency and had to be taken over by the federal government in 1919. The takeover gave us another Canadian institution: the commercial Crown corporation. Canadian National Railways was the first of many government-owned concerns to go into business in competition with private companies.

Two strong challengers to the railways' supremacy in Canadian transportation affairs were about to make a tentative appearance. As the twenties unfolded, private automobiles began to syphon off short-range passenger traffic, and bush pilots were flying men and supplies into mining and forestry projects in the North.

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### *Transportation was an outlet for the new Canadian spirit*

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If the Canadian West could never have been opened up without the railway, the Canadian North could never have opened up without the airplane. With the appearance of the bush pilot as a national symbol, Canadians were suddenly faced with the exciting vision of a rich new frontier.

The emergence of inexpensive mass-produced cars saw the birth of our present mobile society. The number of private cars shot up during the 1920s from 409,000 to more than 1 million. Provincial good roads associations promoted a flurry of highway construction. Commercial trucking was also born, although it was not yet a threat to the railways. In 1930 trucks accounted for only 2 per cent of Canada's total freight revenue.

As a follow-up to its direct participation in the transportation industry through CN, the federal government founded Trans-Canada Air Lines (now Air Canada) in 1937. In the meantime, both the federal and provincial governments had been active in developing a strong infrastructure for the industry, improving roads, airfields and ports.

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World War II left Canada with a highly-developed infrastructure, particularly in military airports which were later given over to civil aviation. It also strengthened the transportation equipment industry as shipyards, aircraft and automotive plants were sharply expanded during the war.

The optimistic nation-building spirit which had inspired the construction of the CPR was revived in the post-war era. Canada once again became the land of the future, striking out in all directions to push back frontiers. Railways were punched through the wilderness of Labrador and northern British Columbia. New roads and highways were laid down everywhere, creating the suburbs and changing the character of our society.

Cargo planes roared back and forth from the North, while Canada's technically-advanced international airlines — CP and Trans-Canada — spread their wings across the oceans. An agreement was reached with the U.S. to build the St. Lawrence Seaway, allowing deep-water shipping into the heart of the continent. In 1950 a start was made on the Trans-Canada Highway, a project of historic dimensions which ushered in the era of federal-provincial cost-sharing schemes.

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### *It is un-Canadian to be satisfied with the system*

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The transportation system of Canada today is to a considerable extent a product of the long-distance highway construction. Truckers have taken over from the railways as the principal carriers of goods. The private car is by far the largest medium of passenger transportation. Canada's railways have responded to these changes by adopting "inter-modal" services combining road, rail, highway and marine carriage — and by going into the trucking business on their own account.

Having turned the threat from other forms of transportation to their advantage, Canada's railways today are the most productive in the world by most statistical measures, despite the operating problems posed by the terrain and climate. But then, the challenges of the Canadian environment have always served as a spur to excellence in the transportation field. They have stimulated such technological developments as the short take-off

and landing aircraft, and (perhaps the best-known of all Canadian inventions) the snowmobile. So expert have Canadians become in all facets of transportation that Canadian consultants in rail-roading, airport and port construction are now at work in many different countries, while Canadian-made transportation and avionics equipment is sold around the world.

Nor has Canadian expertise been confined to conventional methods. Canada is a leader in research into the transmission of solid materials through pipelines, and in long-distance electricity transmission over high-voltage lines. Communications and transportation have gone together since telegraph wires were strung within hours of laying the track in pioneer railway construction.

Given Canada's record in these fields, it is more than appropriate that Expo 86, the world exposition to be held in Vancouver next year, will be devoted to transportation and communications. Vancouver is a city which was practically built on the movement of goods, and is now one of the largest ports in the world.

In the meantime, transportation will no doubt continue to be a brimming source of political controversy in Canada. Never a week goes by without some reference to transportation costs, subsidies or service shortcomings in news reports. Canadians display a rare fascination with the subject, as well they might, considering its importance to their personal and collective well-being. It would be un-Canadian to be satisfied with our transportation system. This is not a bad thing, since the public insistence on good service keeps the industry alert.

National Transportation Week, held every year in the last week of May, is an attempt by the industry to draw public attention to the positive side of the picture. Aside from any technical considerations, transportation serves as a force for breaking down the barriers of regionalism and bringing Canadians together from sea to sea. The sophistication and efficiency of our system today would be the envy of many other countries. It is a dynamic system which keeps expanding and improving — and in doing so improves the economic prospects for us all.