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THE TRANS-CANADA HIGHWAY

(Prepared by Information Services,
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The story of Canada is in many ways a record of the solution of problems presented by the vastness of the country. Sheer space, however, has not been the only obstacle to be overcome; there have also been such formidable barriers to transportation and communication as the Rocky Mountains and the Canadian Shield. Besides, the lines of geographical similarity and economic interest run north and south across the boundary between Canada and the United States, not east and west across Canada.

It is, therefore, obvious that the Canadian nation could attain its full development only with the help of an extensive and costly system of communication. From the outset, Canada's growth has depended on the development of water, rail, road and air transportation. A web of communications has been gradually spread across the country, opening the way to new resources and stimulating economic development. Only against this background can such an achievement as the construction of the Trans-Canada Highway fully be gauged.

The building of highways and roads in Canada is primarily a provincial responsibility. Since 1919, however, the Federal Government has, for various reasons, participated in the construction of highways. It is, of course, wholly responsible for building and maintaining the roads that serve the national parks and the Yukon and Northwest Territories, and for the upkeep of the Alaska Highway. In the construction of the Trans-Canada Highway, however, the Federal Government, in co-operation with the ten provincial governments, has made its largest contribution to road building. Since the passage of the Trans-Canada Highway Act in 1949, provincial and federal authorities have pushed steadily toward the realization of a 4,796-mile paved, all-weather route from St. John's, Newfoundland, to Victoria, British Columbia.

While the provinces undertake the actual building of the Highway (except those stretches that cross the national parks), the procedures governing design and construction are subject to review and approval by federal authorities, and arrangements are such that federal engineers inspect the work as it proceeds.

Construction costs are shared basically by the provincial and federal governments. Since 1956, however, the Federal Government has agreed to increase its share to 90 per cent on 10 per cent of the mileage in each province. In 1963, the 90 percent federal contribution was extended to all remaining construction in the Atlantic region. These measures have proved effective in speeding up construction. Up to the present, Trans-Canada Highway construction completed or under way, is valued at $1,192 million, the federal share of which approximates $803 million. The federal Department of Public Works is responsible for administration of the Act.

Mileages in the individual provinces are as follows: British Columbia 552; Alberta 282; Saskatchewan 406; Manitoba 310; Ontario 1,453; Quebec 388; New Brunswick 376; Nova Scotia 278; Prince Edward Island 71; Newfoundland 540. The total length of the Highway is thus, 4,796 miles, including the additional 140 miles through the national parks.

Besides St. John's and Victoria, the cities along the route include: Charlottetown, P.E.I.; Moncton and Fredericton, N.B.; Montreal, Quebec; Ottawa, Peterborough, Orillia and Kenora, Ontario; Winnipeg, Portage la Prairie and Brandon, Manitoba; Regina, Moose Jaw and Swift Current, Saskatchewan; Medicine Hat and Calgary, Alberta; and Kamloops, New Westminster, Vancouver and Nanaimo, B.C. In Nova Scotia, the route passes through North Sydney and Truro and over the 4,000-foot Canso Causeway, the cost of which, since it was a separate federal project, was not included in the appropriations for the Trans-Canada Highway.

The specifications for the Highway are set out in the Trans-Canada Highway Act. Over the entire route, grades and curves have been reduced as much as possible. Curves, for example, have been kept wherever possible to 3 degrees, but do not exceed 6 degrees, except in isolated cases where the terrain does not permit this with reasonable economy. Grades do not exceed 6 per cent except in very mountainous country, where gradients of 7 and 8 per cent are acceptable for short distances. Wherever possible, minimum horizontal and vertical sight distance has been kept at 600 feet. This means that a driver travelling on the Trans-Canada Highway should see an object six inches high on the pavement in front of him at a distance of 600 feet.

The engineering tasks have been monumental. After work began in 1950, motorists witnessed the spectacle of the greatest array of heavy power-shovels, bull-dozers, graders, dump-trucks and other earth-moving machines ever assembled for a single road-building project in Canada. Muskeg presented special construction problems in Northern Ontario, Newfoundland and elsewhere. In some places the muskeg was as much as 50 feet deep. Then there was the Prairie "gumbo", a treacherous, heavy clay soil covering 25 to 30 per cent of the route across the western plains. In Quebec, the Highway has been pushed through the heart of Canada's largest city, Montreal, by means of such complex projects as a 19,000-foot bridge-tunnel crossing of the St. Lawrence River. In British Columbia, the road-crews had literally to move mountains. Work was extremely hazardous in the Fraser and Kicking Horse Canyons, where hardrock miners blasted away mountain walls 500 to 1,000 feet above turbulent rivers. Landslides were frequent. Since in most places the railway ran below the new Highway, great care had to be taken to protect the tracks, and tons of rubble had to be carried away truckload by truckload. In a single nine-mile stretch between Field and Golden, two million tons of rock and an equal amount of dirt had to be moved, a job requiring 5,000 tons of explosive.

To combat snowslides through Rogers Pass in Glacier National Park, the Department of Public Works devised an elaborate system of avalanche defences. A one-mile section consists almost exclusively of snow-sheds, the most effective type of defence.

On September 3, 1962, a ceremony held in Rogers Pass in Glacier National Park marked the opening of the last major physical gap in the route, making it possible to travel the entire Trans-Canada Highway from coast to coast.

The Trans-Canada Highway ranks with the great transportation achievements of the past. The new transcontinental roadway is making a large contribution to Canada's development, besides offering Canadians and visitors one of the great scenic drives of the world.

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