

# The Canadian Transportation System



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### Modes of Transportation

There are five principal modes of transportation in Canada: water, rail, motor carrier, air and pipeline.

#### Water Transportation

Water transportation is generally used for the movement of bulk commodities of relatively low value per tone, such as coal, ore, grain, gravel and salt. Water transportation may be separated into three general categories: ocean transportation, inland water transportation and coastal transportation. Ocean transportation is important to Canada because about one-third of all that Canada produces is exported by ship to customers overseas, carried by large, oceangoing vessels that serve Canada's major ports. Canadian and American lake carriers and other vessels operating on the Great Lakes and in canals and inland waterways supply goods to inland regions of Canada. For example, much of Canada's iron ore moves via the Great Lakes-St Lawrence Seaway system to steel mills in the US. On the return journey, many of these vessels carry coal from US mines. Transportation in coastal waters is also important. Logs, wood chips, lumber and other bulk commodities are moved by barge in BC's coastal waters (see: Forest Harvesting; Ports and Harbours; Shipping Industry).

#### Rail Transportation

Rail transportation is used principally for the movement of bulk commodities such as grain, coal, ore, lumber and chemicals, for the movement of containers and for other types of merchandise freight. Canada's major mainline rail carriers include Canadian National (CN) and Canadian Pacific (CP). Rail transport offers an efficient means of transport because entire containers can be moved between trains, trucks and ships. Each year Canada's railways move millions of tons of bulk commodities, such as coal, potash, grain and Sulphur. Railways are able to transport large quantities of bulk materials over long distances and at relatively low cost, thus enabling the products of Canada's mines, fields and forests to compete effectively in world markets.

For many years passenger trains represented an important part of the railway business. Today, however, railway passenger trains face intense competition from other forms of transport. Via Rail Canada Inc. is now responsible for most of the passenger train operations, particularly in the Windsor-Québec corridor, by contracting with the two major railways for the operation and maintenance of trains. After suffering significant losses in the 1980s, VIA Rail discontinued service on several lines, but continues its cross-country passenger rail service.

#### Motor Carrier Transportation

Trucks are used in a variety of ways. Small trucks are used as delivery vehicles in cities and towns. In the North, trucks transport logs, petroleum, consumer goods and a great variety of industrial products. Possibly the greatest virtue of motor carrier transportation is its flexibility. They can move wherever there is a highway, a road, a street – or even a relatively flat, hard surface. Virtually everything that we eat or wear has made at least some of its journey to us by truck (see Trucking Industry). A number of large companies operate trucks. Both of Canada's major railways have trucking divisions.

#### Air Transportation

Air transportation is used to move large and small items when speed is important or when remote areas are inaccessible by land or water (see Aviation). Extensive deregulation of the air transport industry in the mid-1980s

avored the domination of major companies such as Air Canada. The 1995 Open Skies agreement between the US and Canada resulted in an explosion of trans-border services. The National Airports Policy (NAP) was established in July 1994. Under the NAP, the federal government changed its role from airport owner and operator to owner and landlord, but maintained its function as regulator.

### Pipeline Transportation

Pipelines, the unseen carrier, are used for the transportation of petroleum, petroleum products, gas and certain chemicals. Pipelines transport enormous quantities of petroleum, gasoline, chemicals and other products, sometimes over long distances. Pipeline transportation requires little labor and is relatively trouble-free because it provides reliable and low-cost transportation. However, it has two principal drawbacks: pipelines require an enormous amount of capital to establish; and they are seldom efficient unless large quantities of product are moved from a single point of origin to a single destination over a long period of time. Pipelines are also used for the transportation of bitumen from Alberta oil sands projects.

### Passenger Transportation

Passenger transportation includes many modes of self-propelled, animal-propelled and motorized travel, including planes, trains, boats, buses, automobiles, taxis, manual and electric bicycles, horses, snowmobile or dogsled. The automobile accounts for the greatest percentage of passenger travel in Canada today as well as much of the congestion in and around urban roadways. Most of Canada's urban areas have some form of public transportation. Both Montréal and Toronto are served by commuter railway systems. Some cities have subways, while others are served by buses (see Bus Transportation), streetcars, electric trolley cars or a mixture of vehicle types. Some urban transportation systems are operated by the cities themselves, some by regional districts and some by special transit authorities. Many cities provide parallel transit services for people with disabilities.

Most Canadian cities have taxi service. In some cities, a license is required to operate a taxi, and a limited number of licenses are issued. Some taxi companies enjoy a monopoly. One or more companies may be given the exclusive right to pick up passengers at airports, railway stations or other areas where passengers originate. The largest ferry system in Canada is operated by the BC Ferries, providing service between the Vancouver area and the cities of Victoria, Nanaimo, many of the Gulf Islands and some remote northern communities. There are ferries on Canada's East Coast, and on some of its lakes and inland waterways. Ferry service is provided from New Brunswick to PEI, although most passenger traffic occurs via the Confederation Bridge.

### Transportation and Communications

The transportation and communications industries have always been related. When good communications are established with another country, trade will often follow. Certainly, there cannot be much trade without good communications. Some system has to be available for the transmission of orders and the movement of shipping documents and other shipping details. In these areas transportation and communication are complementary. In other areas they may compete. Personal transactions have been replaced in many instances by electronic communications. As transport costs increase and better communications systems are developed, transportation and communications will compete increasingly in certain areas (see Computer Communications; Communications Technology; Telecommunications).

### Transportation and Travel

The availability of comfortable, convenient and relatively low-cost transportation (by air, train and bus or automobile) has encouraged the development of the travel industry — one of the fastest-growing segments of the Canadian economy (see Tourism). Much of this development results from co-operative arrangements between transportation companies, travel agents and the operators of hotels, car rental agencies and other such facilities. Tour packages that include hotels, meals, guides and other items are frequently arranged by a tour operator (sometimes called a wholesaler) and marketed by travel agents. A number of these operators are subsidiaries of airlines.

### Government Role in Transportation

Governments have traditionally played an important role in transportation. That role has taken several forms: promotion, regulation, subsidization and operation. The federal government began the promotion of transportation more than a century ago when it encouraged the construction of railways. It promoted railway development through loans, grants and guarantees. After the railways were built, they had enormous power over users of their services. Governments then began to regulate the rates charged by the railways to ensure the fair treatment of all shippers and a fair return to the transportation companies (see Transportation Regulation).

Governments have subsidized every form of transportation in Canada at one time or another. Transportation subsidies may be divided into two general categories: direct subsidies and indirect subsidies. As mentioned, enormous construction subsidies were given to the railways. Substantial operating subsidies have been given to VIA Rail Canada and to other carriers. Most urban transportation systems are subsidized. Governments have also given indirect subsidies of many kinds. Sometimes a government has permitted the use of government-constructed facilities at less than the cost of providing these facilities, thus providing an indirect subsidy to the users of the facilities. For many years, the railways have carried export grain at far less than it cost them to haul it. Additional indirect subsidies result when a government agency provides transport infrastructures (such as an airport, a highway or port facilities) and does not charge sufficient user fees (see Transportation Agencies).

Transport Canada's mandate is to ensure that Canada's transportation system is safe and environmentally sustainable. The government agency monitors all aspects of the system and recommends improvements as required to protect life, property and the environment. Transport Canada is responsible for aviation system safety, commercial aviation, air regulation enforcement, aerodrome safety and the regulation of air navigation systems and airspace; shipping activities in Canadian waters; monitoring the operation and maintenance of the railways system; monitoring road and motor vehicle safety; and ensuring emergency preparedness.

### Employment Opportunities

Transportation is labor intensive; about half of every revenue dollar received by a transportation company is used for employee salaries, wages and benefits. Since transportation is vital to so many sectors of the economy, it provides many good job opportunities. These vary from entry-level jobs such as a clerk, a truck driver or a maintenance apprentice to high-level jobs such as the manager of an airport, a steamship company or a transportation conglomerate. Some transportation jobs require personnel who are interested in accounting, finance or marketing; others require personnel skilled in labor, production management or computer systems.

As transportation technology changes and as greater demands are made on Canada's transport systems, job opportunities will increase, particularly for trained, hardworking and innovative personnel.

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