

## Rail Transportation Infrastructure

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### Abstract

In 2006 there were 48 068 kilometres of railways, stretching from the Atlantic to the Pacific oceans. The two largest Class 1 carriers, Canadian National Railway Company (CN) which owns or leases 22 686 kilometres of railways and Canadian Pacific Rail Company (CPR) which owns or leases 12 812 kilometres. The regional and shortline railways combined, own or lease a total of 11 734 kilometres. Regional railways are mid-sized railroads that do not have a national presence. Shortline railways provide localized rail services and are usually partnered with larger railways. Mainlines are the principal artery of the railway system from which the collectors and primary feeders (branches), yards, and spurs are connected. Mainline tracks generally allow travel at higher speeds than branch lines and are usually maintained and built to a higher standard than yards and branch lines. Stations refer to either train stations (a terminal where trains load or unload passengers or goods) or railway junctions (where two or more railway lines cross).

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Railways from the mid 19th century were the most important and viable means of transportation until World War I. They were built primarily to open new areas to settlement, and for political and economic reasons to encourage exploitation of natural resources for trade and to defend sovereignty through infrastructure development in remote unpopulated areas. The first railway was the Champlain and Saint Lawrence Railroad built in 1836. At Confederation, one of the conditions of union was the building of the Intercolonial Railway linking the Maritime colonies to the Province of Canada. Expansion of the railway westward opened the west with the construction of Canadian Pacific Railway; British Columbia joined in 1873. Further railway infrastructure investment and development in the later half of the century assisted in the settling and economic exploitation of the western provinces between Ontario and British Columbia. For further information on the settlement of Canada, please refer to the "History" section of the Atlas of Canada.

One hundred and sixty four years later, Canada's railways are still used to transport bulk raw materials. In Western Canada grain, coal, forest products, and fertilizer materials are the main commodities transported. In Eastern Canada the main commodities are iron ore, other ores, mine products, forest products and intermodal shipments. In terms of exports in 2006, railway freight carriers exported 78.0 million tonnes of commodities. The largest volume of exports was from Ontario into the United States: Fort Frances and Sarnia accounted for 22.4 and 15.6% of the export trade in the province. In 2005 CN earned revenues of 4 950 000 million followed by CPR at 3 723 000 dollars. Regional and shortline railways combined earned revenues of 690 million. VIA rail is the dominant inter-city passenger carrier with revenues of 430 million and carried 4.1 million passengers in 2005. GO transit in Toronto and surrounding urban area accounts for 70% of all commuter rail traffic.

There are five tourist railways shown on the map. The longest line is the White Pass and Yukon Route, which runs north from Fraser, British Columbia for 110 miles into the Yukon. The other four lines are much shorter ranging from 5 miles to 21 miles. These are the Alberta Prairie Railway Excursions, which runs between Stettler and Big Valley Alberta; Port Stanley Terminal Rail line from St. Thomas, Ontario to the Lake Erie shoreline at Port Stanley; Chemin de fer de l'Outaouais rail line from Gatineau, Quebec to Wakefield, Quebec and the York-Durham Heritage Railway from Stouffville to Uxbridge, north of Toronto. The two passenger carriers shown on the map are Amtrak (originating in the United States to Montréal and Vancouver) and VIA Rail Canada. The four commuter railways shown on the map are found in Canada's major cities: Montréal (Agence métropolitaine de transport); Toronto (GO Transit and the Northlander); and Vancouver (West Coast Express).

## Mapping Notes

Due to the scale at which we have mapped the railway network, many of the single railway lines shown on the map may represent more than one rail line in areas where the rail lines closely run parallel to each other in southern areas of the country. Train stations on the map only show the nodes at which two or more railway lines intersect; they do not indicate train station ownership by carrier.

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## Map Sources

### Rail Transportation Infrastructure

Railway Association of Canada. 1996. Canadian Railway Atlas, 2nd Edition.

Railway Association of Canada. 2003. Canadian Railway Atlas, 4th Edition.

Railway Association of Canada. Web site: <http://www.railcan.ca/>

## References

Hoyle, B. and R. Knowles. 1998. Modern Transport Geography, Second Revised Edition. Rexdale: John Wiley & Sons.

Transport Canada. 2000. A Millennium of Transportation in Canada.

Transport Canada. 2005. Transportation in Canada 2005: Annual Report

Transport Canada. 2006. Transportation in Canada 2006: Annual Report.

## **Related Web sites (1999 – 2009)**

### **Federal Government**

Statistics Canada (Guide to Transportation Data)

<http://www.statcan.gc.ca/bsolc/olc-cel/olc-cel?catno=50F0001G&CHROPG=1&lang=eng>

Transport Canada (Annual Reports)

<http://www.tc.gc.ca/eng/policy/menu.htm>

Transport Canada (Rail)

<http://www.tc.gc.ca/eng/rail-menu.htm>

### **Other**

Canadian National Railway Company (CN)

<http://www.cn.ca/en/index.htm>

Canadian Pacific Railway Company (CPR)

<http://www8.cpr.ca/cms/English/default.htm?1>

The Railway Association of Canada

<http://www.railcan.ca/>

VIA Rail Canada: History

[http://www.viarail.ca/corporate/en\\_history.html](http://www.viarail.ca/corporate/en_history.html)

