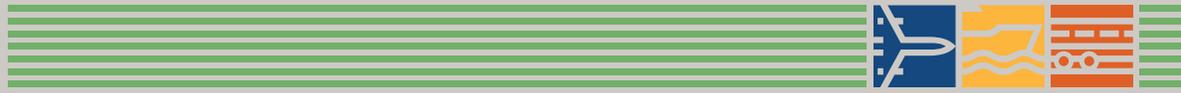




Transport
Canada

Transports
Canada



TP 14816

TRANSPORTATION IN CANADA 2012



Overview Report

© Minister of Public Works and Government Services, Canada, 2012

Cat. No. T1-21/2012E-PDF

ISSN 1920-0846

Également disponible en français sous le titre « Les transports au Canada 2012 »

T1-21/2012E-PDF

Table of Contents

Introduction	III
Transportation and the Economy.....	1
Government Spending and Revenues from Transportation	3
Air Transportation	6
Marine Transportation.....	10
Rail Transportation	14
Road Transportation	18
Transportation of Dangerous Goods.....	22
Gateways, Corridors and Multimodal Transportation	23

Minister of Transport



Ministre des Transports

Ottawa, Canada K1A 0N5

His Excellency the Right Honourable David Johnston, C.C., C.M.M., C.O.M., C.D.
Governor General and Commander-in-Chief of Canada
Rideau Hall
1 Sussex Drive
Ottawa, Ontario
K1A 0A1

Excellency,

It is with great pleasure that I submit *Transportation in Canada*, 2012, the annual report on the state of transportation in Canada. This marks the sixth report produced in conformity with the statutory requirements spelled out in Section 52 of the *2007 Canada Transportation Act*.

The report is based on the most current data and information needed to understand the challenges and opportunities facing Canada's transportation system and its stakeholders. The report provides an account of key events, current and future issues, and efforts for sustaining an efficient, clean, safe and secure transportation system. It is complemented with an extensive addendum comprising of transportation statistics, figures, charts and maps.

In 2012, Canada's transportation system continued on its path of recovery following the economic difficulties since 2008. Activity, whether measured in terms of passengers or freight, was generally up while accident rates were generally unchanged or improving throughout the system.

I hope that this report will prove useful to you and all parties with an interest in continuing to build a safe, secure, efficient and environmentally sustainable transportation system in Canada.

Sincerely,

A handwritten signature in blue ink, appearing to read 'LRaitt'.

The Honourable Lisa Raitt, P.C., M.P.
Minister of Transport

Transportation in Canada is Transport Canada's flagship economic and statistical publication. The report is produced as a means for the Minister of Transport, Infrastructure and Communities to meet his obligation to report annually to Parliament on the state of transportation in Canada, as prescribed by Section 52 of the *Canada Transportation Act* and which reads as follows:

Industry overview

52. (1) *Each year before the end of May, the Minister shall, using the most current information available, prepare and lay before both Houses of Parliament a report providing a brief overview of the state of transportation in Canada.*

Industry review

(2) *Every five years, the report referred to in subsection (1) shall be expanded to a comprehensive review of the state of transportation in Canada which shall include*

- (a) *the financial performance of each mode of transportation and its contribution to the Canadian economy;*
- (b) *the extent to which carriers and modes of transportation were provided resources, facilities and services at public expense;*
- (c) *the extent to which carriers and modes of transportation received compensation, indirectly and directly, for the resources, facilities and services that were required to be provided as an imposed public duty;*
 - (c.1) *the long term outlook and trends in transportation in Canada; and*
- (d) *any other transportation matters that the Minister considers appropriate.*

Transportation in Canada, 2012 is the report's 21st edition and the 6th edition since amendments to Section 52 of the Act came into effect in 2007. It is made up of an Overview Report accompanied by a Statistical Addendum. The Overview Report presents selected highlights of noteworthy events in the transportation sector in 2012 and includes the most recent key statistics. The Statistical Addendum is comprised of more than 270 tables, charts, figures and maps, which support and greatly enrich the Overview Report. The Statistical Addendum presents the most recent data available as well as, when appropriate, historical data going back by as much as 10 years. It contains relevant and detailed information on a large number of areas including: employment, trade and tourism, energy consumption and accident and incident statistics by mode. Addendum tables and figures also cover transportation infrastructure, industry structure, activity levels and performance, all of which makes for a complete, comprehensive and informative picture.

The brief overview of the state of transportation in Canada in 2012 presents a number of selected highlights from the year across all modes of transportation (air, marine, rail and road) and views them through five lenses: government spending and revenues, marketplace and infrastructure, the environment, safety and security and macroeconomic considerations that underpin the demand for passenger and goods transportation in Canada. These highlights are not an attempt to provide a complete narrative of all events that shaped transportation in Canada in 2012 but are meant to present the reader with a broad overview of the current state of Canada's transportation system. Readers interested in going beyond the highlights are invited to consult the Statistical Addendum, one of the most complete and in-depth sources of transportation data produced in Canada. Readers may also be interested in consulting the 2011 edition of this report, a comprehensive report providing significantly more in-depth analysis on issues still relevant to today's transportation system.

The movement of people and goods lies at the cornerstone of our modern and interconnected world. Canadians expect to be able to travel and expedite the movement of goods locally, across the country or around the world in an efficient, clean, safe and secure manner. Canada's transportation system enables them to do so, allowing people to connect and making it possible for goods to reach markets across vast and often challenging landscapes. Transportation methods and systems in Canada are also constantly evolving to meet new challenges, reflecting a society in a constant state of change, shaped by changing demographics, new ways to purchase goods and the emergence of new markets in which to sell goods.

Against this landscape, a changing economic environment is modulating demand, shifting transportation needs from one region to the next and from one trading partner to the next. As the supply of transportation services adapts to this environment, it creates opportunities for Canada to explore new markets, better serve its domestic markets and mitigate the impacts of geography on the movements of people and goods.

The Overview Report and the Statistical Addendum presented here rely on a wide variety of external sources and while the utmost care has been taken to provide accurate information, Transport Canada cannot always guarantee its accuracy as different and disparate sources often bear the onus for data validation. For clarity, footnotes are used to indicate situations where data validation may be a concern. As well, given the constraints of the statutory deadlines under which this report is produced, some issues were not pursued if the validity of data was not adequately confirmed and it is only in exceptional cases that estimates are used to redress data limitations. And finally, this report is not an attempt to present a prospective view of Canada's transportation system; readers are encouraged to exercise proper caution.

Transportation in Canada 2012 and previous editions are available at no charge at [Transport Canada Publications Online](http://www.tc.gc.ca/eng/policy/anre-menu.htm) (<http://www.tc.gc.ca/eng/policy/anre-menu.htm>).

Transportation and the Economy

- Canada's economic momentum slowed in 2012. Real Gross Domestic Product (GDP) growth for the year was a modest 1.8 per cent. For the year, household consumption was constrained by high debt levels, tighter borrowing requirements and some cooling in the housing market. Despite low to negative real interest rates, business investment was constrained by economic uncertainty and deficient demand, particularly in export markets. GDP growth was also curtailed by government spending reductions and the expiry of short-term stimulus items introduced after the economic downturn in 2008–2009.
- Exports grew slightly, up 1.6 per cent in value terms, following two years of gains in excess of 10 per cent. The United States accounted for three-quarters of Canada's total exports, up slightly from 2011. With the European Union falling into a double-dip recession, Canada's exports to the EU dropped by 4.0 per cent. China also saw a pullback in growth rates, but Canadian exports there still grew by almost 15 per cent. Bitumen, vehicles and parts, wheat and canola were notable bright spots in terms of year-to-year growth in exports. Exports of natural gas fell owing to pipeline bottlenecks, while exports, in dollar terms, of coal, nickel and aluminum fell due to weak commodity prices and low demand.
- The value of imports rose a modest 3.5 per cent in 2012, following back-to-back annual increases above 10 per cent, year-over-year. Vehicle engines and parts as well as transport truck tractors saw strong gains in the 15 per cent range. Natural gas and petroleum products saw drops in excess of 20 per cent. In terms of trading partners, imports from the United States rose 5.6 per cent (climbing back above a 50 per cent share of imports by value); imports from the European Union fell 3.0 per cent, mainly due to a decline in the value of the Euro; and imports from China grew by 5.2 per cent. The value of imports from Iraq, almost exclusively petroleum, jumped 62 per cent, enough to make it our 13th-largest source of imports in terms of value in 2012 and our third most important foreign source of petroleum.
- Canada's terms of trade (the ratio of export prices to import prices) fell 1.2 per cent in 2012.
- Foreign exchange rates were fairly stable in 2012: The average exchange rate of United States dollars for Canadian dollars averaged close to par in 2012 (0.9996 USD/C\$), up slightly from 2011 (0.9891 USD/C\$). Exchange rates fluctuated roughly between 0.98 and 1.03 USD/C\$ during 2012. The average value of the Euro was 1.2850 per Canadian dollar in 2012, down from 1.3767 Euro/C\$ the previous year. A British pound traded for 1.5840 C\$ on average, basically unchanged from 2011. Exchange rates for the Chinese renminbi and Japanese yen in terms of Canadian dollars were also relatively unchanged, on average, against 2011 rates.
- The Bank of Canada bank rate held at 1.25 per cent throughout 2012 and the business prime rate remained stable at 3.0 per cent. Benchmark Government of Canada 10-year bond yields averaged 1.85 per cent over the year, with little variance.
- Corporate operating profits across all industries held steady, following solid gains coming out of the 2008–2009 recession. Operating profits in the Transportation and Warehousing sector rose by an above-average 11.2 per cent.
- For the year, construction, notably residential and manufacturing, led by transportation equipment, were the main contributors to growth in goods production.
- GDP by industry data indicated strong growth in the construction sector (notably residential), up 4.0 per cent in value-added for the year. Manufacturing saw a decline in GDP of 3.3 per cent. The transport sector was paced by gains in marine (up 4.5 per cent), rail (up 3.9 per cent) and air (up 3.8 per cent). Truck transport grew by a more modest 0.9 per cent.
- Investments in capital assets including buildings, infrastructure and machinery and equipment grew strongly for the transportation sector, particularly for transit, pipelines and aviation. Preliminary estimates indicate capital investments for 2012 at \$5.2 billion for transit, \$3.6 billion for pipelines and \$2.2 billion in the air industry.

- New job creation in Canada kept pace with the growth in the working-age population; the employment rate held steady at 61.8 per cent in 2012, roughly the same rate as seen during the previous four years. Employment growth in the Transportation and Warehousing sector was below 1 per cent. Self-employment was stable, while paid employment grew modestly; hours worked were flat and wages increased slightly (by 0.8 per cent).
- A new Statistics Canada survey of job vacancies showed that the job vacancy rate held steady at around 2 per cent for the Transportation and Warehousing sector in 2012. There were approximately 2.5 unemployed persons for every job vacancy in the sector, roughly half the average economy-wide ratio of unemployed persons to job vacancies.
- Employment in the transportation sector in 2012 reached 894,233, a 2.2 per cent rise compared to 2011. The trucking sector had the highest number of employees, 175,785, up 2.9 per cent from 2011. Transportation employment is now above its pre-economic downturn levels.
- All transport modes for which there is data registered gains in productivity in 2011 (the most recent year for which data is available). Freight rail experienced an increase of 6.6 per cent in multifactor productivity in 2011 while Air transport's multifactor productivity increased 4.8 per cent. Productivity in the Public Transit sector rose by 2.7 per cent. (Multifactor productivity measures track the relative changes in outputs from additional inputs including: labour, vehicles, machinery and equipment and information and communication technologies (ICTs)).
- Statistics Canada's Raw Materials Price Index fell by an average of 6.3 per cent in 2012, while the Industrial Products Price Index rose by a modest 0.5 per cent. Within the latter category, the motor vehicles and other transportation equipment component rose at a rate of 1.0 per cent.
- The all-items Consumer Price Index (CPI) rose by 1.5 per cent on the year. The core CPI, which excludes food, fuel and indirect taxes, rose by 1.2 per cent. Averaging 2.0 per cent, inflation in the consumer transportation component was higher than the overall CPI. Of the transportation sub-categories included in the CPI basket, local commuter transportation and gasoline prices had the highest increases (both at 2.5 per cent).
- In 2012 the retail price of road gasoline and diesel increased by 2.9 and 0.7 per cent respectively as measured by a volume-weighted index provided by M.J. Ervin and Associates. Average price changes for unleaded fuel over the year ranged from no change in Victoria to a 5.1 per cent increase in Quebec City. Diesel prices jumped 8.6 per cent in Yellowknife, but the rest of the country experienced more moderate average price fluctuations, ranging from plus 4.8 per cent in Quebec City to minus 1.1 per cent in Toronto.
- The price of jet fuel increased 2.6 per cent, marine bunker fuel by 9.5 per cent and rail diesel by 3.7 per cent.
- In world oil markets, the gap between Brent and West Texas Intermediate benchmark oil prices received a great deal of attention. Brent saw a small (1.9 per cent) price increase relative to 2011, while WTI was flat (0.2 per cent). An even larger gap developed for Canadian crude exports, with the average 2012 price for the Canadian Heavy benchmark falling by 6.4 per cent and the average price for Canadian par falling by 8.9 per cent. Growing domestic supplies in the United States and pipeline bottlenecks for Canadian exports were blamed for the growing price differentials.
- In response to tight capacity in the pipelines, shipments of oil and gas by rail tankers grew by 30.6 percent in 2012 to reach 20.8 million tonnes. This is a 58 per cent increase compared to 2009.
- The most recent energy consumption estimates available (for 2011), show that transportation energy use (excluding pipelines) increased by 1.1 per cent. The aviation sector used 1.7 per cent less energy than the previous year, while rail and road used 1.9 per cent and 2.4 per cent more energy respectively. Energy consumption by pipelines decreased by 0.8 per cent. Road transportation is the largest consumer of energy, representing roughly 85 per cent of total energy use in the transportation sector.

Government Spending and Revenues from Transportation

Overall revenues and expenditures

- Transportation spending totaled \$19 billion for the federal, provincial and territorial governments in the 2011-2012 fiscal year. Overall spending was down almost 14.7 per cent compared to 2010-2011.
- For the fiscal year, receipts from transportation users (including fuel taxes, licenses and registrations), totaled \$16.9 billion for the federal and provincial/territorial governments. This amount represented an increase of 3.3 per cent over the previous year. Fuel taxes rose 4.5 per cent to \$13.7 billion. Other receipts collected by the federal government rose by 7.7 per cent. The national total for transportation-related license and registration fees collected by the provinces and territories fell by 5.2 per cent to \$2.2 billion.
- Including transfers to the provinces and territories, the federal government spent \$2.8 billion, an increase of 1.9 per cent over the previous year.
- Provincial spending fell by 4.1 per cent, or \$0.7 billion. Capital expenses on additions and improvements accounted for 56 per cent of provincial spending, and transfers to the local level made up 17 per cent of the total.
- Funding to municipalities and local governments grew by \$92 million from the provinces. Gas tax funding for the provinces, territories as well as local and municipal governments totaled \$2.2 billion from the federal government.
- For 2011-2012, Transport Canada accounted for 56 per cent of federal operating and program expenditures. The Coast Guard followed, with a 27 per cent share. Total federal operating and program expenses (excluding grants and contributions) fell by over 10 per cent, or \$143.7 million.
- Federal funding was split between transit projects (15 per cent, not including gas tax funding), highways, roads and bridges (35 per cent), rail (25 per cent), and marine (15 per cent).
- Combined provincial and territorial spending was predominantly directed at highways and roads (78 per cent), followed by transit and marine (16 and 2 per cent, respectively).
- Urban transit revenues grew by 5.5 per cent in 2012, but ridership grew only 2.5 per cent. The gap between these two measures of growth has been persistent and growing for most of the past ten years.
- The federal government collected \$5.0 billion from fuel taxes, with \$4.9 billion coming from road users. Provincial governments collected \$8.6 billion in fuel taxes and sales tax equivalents charged on the sale of fuel.

Air

- In 2012-13, the Airports Capital Assistance Program funded 45 safety-related projects at 29 airports for an estimated cost of over \$31.4 million. Examples include runway rehabilitation at Churchill Falls (\$9.5 million), airside electrical rehabilitation at Sault Ste. Marie (\$592,500) and a new snow blower at Lethbridge (\$410,600).
- The federal Building Canada Plan (BCP) and the Province of Newfoundland and Labrador each provided \$3.3 million to resurface and upgrade Gander International Airport's 3.2-km runway 03/21, while the federal Gateways and Border Crossings Fund (GBCF) and the Province of Prince Edward Island each provided \$1.2 million for the \$3.8-million expansion of Charlottetown Airport's passenger terminal, completed in December 2012. The airport authority supplied the balance of the funds, as well as \$3.2 million for terminal modernization.
- In 2011-12, revenues from Transport Canada's (TC) 17 airports and single water aerodrome were \$12.2 million; total expenditures (operating and capital) for these aerodromes was \$47.4 million.
- Nunavut's territorial government is investing \$300 million in the Iqaluit Airport Improvement Project to build a new terminal, expand the existing apron, upgrade the runway and install a new lighting system. In December 2012, three bidding teams were shortlisted to participate in the request for proposals.
- Yukon's territorial government is investing \$7.4 million over two years to extend water and sewer services to the south commercial area at the Erik Nielsen Whitehorse International Airport.

-
- Total rent paid to the federal government by National Airport System (NAS) airport authorities is expected to be \$282.6 million in 2011, an 11 per cent increase from 2010.
 - In 2011–12, the federal government collected \$631 million from the Air Traveller Security Charge. During that same period, the Canadian Air Transport Security Authority (CATSA) expenditures were \$515 million. ATSC revenues are also used to fund Transport Canada’s regulatory and oversight activities and the presence of officers from the Royal Canadian Mounted Police on certain flights.

Marine

- The Gateways and Border Crossings Fund (GBCF) is investing \$85.6 million between 2012 and 2014 in the construction of a railway and an intermodal port station at the Port of Saguenay (\$15 million), the construction of a multi-user dock at the Port of Sept-Îles (\$55 million) and the optimization of container handling areas, as well as software upgrades for the Port of Montreal (\$15.6 million). The GBCF also invested \$54 million to upgrade the Richmond Terminal and extend the South End Terminal at the Port of Halifax and \$4.5 million for the new Diamond Jubilee cruise ship terminal at the Port of Saint John.
- In 2011–12, TC spent \$26.3 million on the Ferry Services Contribution Program, which supports the private operators of three interprovincial ferry services in Eastern Canada; the amount of that contribution is expected to grow to \$32.2 million in 2012–13. In addition, TC provided a \$27.5-million grant in 2012–13 to the Government of British Columbia for ferry services operated by BC Ferries.
- Budget 2012 extended funding for two years for TC’s Port Divestiture Program. The department received \$21 million over two years to transfer ports and \$6.3 million in 2012–13 to operate and maintain non-divested ports. In 2011–12, six ports were divested; contributions in support of these divestitures totalled \$27.9 million.
- TC spent \$12.3 million to operate its 61 ports in 2011–12 and invested \$11.6 million for capital projects. It collected approximately \$10.4 million in revenues. For 2012–2013, it estimates spending \$12.6 million to operate the ports and \$6.9 million for capital projects while collecting approximately \$9.3 million in revenues.
- TC launched the Shore Power Technology for Ports (SPTP) program designed to reduce emissions in the Canadian transportation sector and improve air quality. The SPTP is a \$27.2-million five-year program that provides cost-shared funding for the deployment of marine shore power technology at Canadian ports. This technology allows docked ships to be powered by the local electrical grid instead of their own auxiliary diesel engines, reducing the emissions of air pollutants and greenhouse gases.
- The Canadian Coast Guard awarded a \$6-million contract to Seaway Marine of St. Catharines for repairs to the icebreaker CCGS *Amundsen*. It also awarded a \$9.5-million contract to STX Canada Marine for the design of the future Polar Icebreaker CCGS *John G. Diefenbaker*, the Coast Guard’s future flagship to be built by the Vancouver Shipyards Company. This project is part of the 2010 National Shipbuilding Procurement Strategy.

Rail

- TC committed nearly \$13 million under the Grade Crossing Improvement Program in 2012 to improve 61 crossings and replace LED bulbs at 749 other crossings across the country.
- The federal government invested \$3.4 million and VIA Rail \$2 million to build a new and improved train station in Windsor. The station is completely accessible and has a capacity of 300 passengers.
- In the Lower Mainland of British Columbia, construction has begun on the new, 11-km Evergreen Skytrain Line connecting Coquitlam to Vancouver via Port Moody and Burnaby. The federal government is contributing \$417 million from the Building Canada Fund (BCF) and the Public Transit Capital Trust towards this project. The provincial government is contributing \$583 million and Translink \$400 million. Work is expected to be completed in 2017.
- Tunnel boring is underway for the Toronto-York Spadina Subway Extension, which will extend Toronto’s subway system to York Region. Service on the new extension is planned to start in the fall of 2016. The federal contribution for this project through the BCF is \$697 million, while the provincial government is providing \$870 million, Toronto \$526 million and York \$352 million.

Road

- The Gateways and Border Crossings Fund (GBCF), a Building Canada Plan (BCP) component, invested \$250.8 million in fiscal year 2012–13 to improve infrastructure at key locations, including major border crossings between Canada and the United States.
- Major road projects funded under the BCP and completed in 2012 include: the Highway 104 Phase 1 project in Nova Scotia (\$25 million), the Cameron Heights Drive Interchange along the Southwest Edmonton Ring Road (\$12.5 million) and Highway 10 improvements north of Brandon, Manitoba (\$3.8 million).
- A number of major highway projects were completed in partnership with the Government of Quebec, including Highway 30, Highway 50 and Highway 175. These projects represent a total federal investment of over \$1 billion from the BCF and the Canada Strategic Infrastructure Fund and more than \$2 billion from the Province. In New Brunswick, the Route 1 Gateway project was completed in the fall of 2012; this project received \$210 million in federal funding and \$370 million in provincial funding.
- Across the country, provincial governments continued to invest substantial funds in maintaining their road networks. This includes: Quebec (\$3.4 billion), Ontario (\$2.4 billion), B.C. (\$960 million), Saskatchewan (\$582 million) and Nova Scotia (\$363 million).
- Announced in May 2012, the ecoTechnology for Vehicles (eTV) Program is a five-year, \$38-million program that conducts in-depth safety, environmental and performance testing on new and emerging advanced vehicle technologies for passenger cars and heavy-duty trucks. Results are being used by the federal government to inform the development of future vehicle environmental regulations and guidelines and to help inform the development of non-regulatory codes and standards that support the integration of new vehicle technologies.
- Almost \$2.5 million in federal financial support was provided in fiscal year 2012–13 toward a broad range of technology planning strategies and investments. These include regional intelligent transportation system architectures and best-practice guidelines for technology investments, the deployment of border wait-time systems for commercial vehicles on Highway 15 in B.C. and upgrades of critical technology applications such as weigh-in-motion to facilitate commercial vehicle traffic flow and environmental sensor stations to improve winter road maintenance.
- The Yukon government is investing over \$36 million in a number of major road projects, including \$15 million for the Haines Road and north Alaska Highway and \$8.8 million for reconstructing and resurfacing of 180 km of the Campbell Highway.
- The Government of Quebec announced in its 2013–14 budget speech that capital investments on all infrastructure, including transportation, will be capped at \$9.5 billion a year, on average, over the next five years.

Other

- Through its Transportation Development Centre (TDC), Transport Canada conducts multimodal R&D initiatives in strategic technologies to promote transportation innovation in collaboration with transportation industry partners. During 2012, TDC invested \$6 million in R&D activities, with a matching amount being invested by its partners.
- In 2012–13, Transport Canada conducted 19 Federal Contaminated Site Action Plan (FCSAP) remediation projects, four environmental site assessments and eight remediation projects from departmental funds at airports and ports for a total expenditure of \$9.5 million.

Air Transportation

Economic Marketplace and Infrastructure

- Passenger traffic at Canadian airports increased 4.8 per cent in 2012, to reach 118.5 million enplaned and deplaned passengers. Domestic, Canada-U.S. and other international traffic increased year-over-year by 5.3 per cent, 4.2 per cent and 3.7 per cent respectively. Air Canada (including its regional feeder Air Canada Express) and WestJet carried 34.9 million and 17.4 million passengers respectively.
- Freight traffic at Canadian airports was 1.1 Mt in 2012, up 1.9 per cent from 2011. Domestic traffic increased year-over-year by 0.7 per cent, while Canada-U.S. and other international traffic decreased year-over-year by 2.4 per cent and 2.9 per cent respectively. The value of Canada's international air cargo trade decreased by 1.9 per cent from 2011 levels to reach \$108 billion.
- The number of take-offs and landings reported at Canadian airports totalled 6.5 million in 2012, a 3.6 per cent increase from the 6.2 million movements reported in 2011. Itinerant movements increased 6.1 per cent in 2012 compared to 2011, while local movements decreased 3.3 per cent. Commercial carrier itinerant movements increased by 0.3 per cent to 3.9 million and general aviation movements decreased by 1.4 per cent (to 2.5 million).
- In 2011, the National Airport System (NAS) airport authority revenues were \$2.9 billion, an increase of 5.3 per cent over 2010. The airport authorities in Toronto, Montreal, Vancouver and Calgary accounted for 78 per cent of these revenues; 40 per cent of revenues earned were from aeronautical sources, 27 per cent from non-aeronautical sources and 30 per cent were derived from passenger facility fees.
- Revenues from Airport Improvement Fees yielded \$857.7 million in 2011, an increase of \$45.9 million or 5.7 per cent over 2010. Airport operating expenses remained virtually unchanged from 2010 at \$1.1 billion, while interest charges increased by 4 per cent to \$676 million. The aggregate net income for all airport authorities decreased 31 per cent to \$137 million in 2011. Total capital expenditures by NAS airport authorities in 2011 amounted to \$600 million, up 7 per cent from 2010.
- The Greater Toronto Airport Authority and American Express entered into a partnership that will see some American Express cardholders enjoy fast-track lanes for security screening, complimentary valet services, complimentary internet services and a dedicated waiting line for taxi and limousine pick-ups.
- Ottawa Macdonald-Cartier International Airport resurfaced its 2,538-metre runway 07/25 during the summer of 2012. This \$14-million project was the first resurfacing for this runway since 1994.
- The Winnipeg Airport Authority won a Winnipeg Accessibility Award for the design of its new terminal, opened in October 2011. The award recognized the importance that universal design for accessibility played in planning this new building.
- Air Canada's earnings in 2012 were \$131 million on revenues of \$12.1 billion, while WestJet's earnings were \$242.4 million on revenues of \$3.4 billion. Air Canada's revenues were up 4.4 per cent compared to 2011 while WestJet's were up 11.6 per cent.
- Air Canada announced the creation of a new low-cost subsidiary, *rouge*, which will cater to the leisure Caribbean and European markets. *rouge* is expected to launch on July 1, 2013 with 200 employees and a fleet of two Boeing B767-300ERs and two Airbus A319s, currently operated by Air Canada; the fleet could increase to 20 B767s and 30 A319s over time. Air Canada also announced the purchase of two Boeing B777-300ERs, which will bring its B777 fleet to 20 and the transfer of all of its 15 Embraer E175s to Air Canada Express operator Sky Regional. Finally, another Air Canada Express operator, Jazz converted six options to firm orders for Bombardier Q400 aircraft.
- WestJet announced the creation of a new Calgary-based regional carrier, Encore, for which it ordered 20 new Q400s, with an option on 25 additional aircraft. Encore is expected to launch in the second half of 2013. WestJet also modified the cabins of its Boeing B-737s to accommodate a premium economy section and took possession of its 100th Next Generation B-737.

- Cargojet moved into a new 800-square-metre facility, part of Edmonton International Airport's 4,700-square-metre cargo village. The facility will provide warehousing space, trucking docks and airside access to a dedicated cargo ramp.
- Canadian carriers launched a number of new routes in 2012. Air Canada began serving New York (Kennedy) from Toronto, Goose Bay from Deer Lake and Liberia (Costa Rica) from Montreal and Toronto. WestJet began serving Whitehorse from Vancouver, Chicago from Vancouver and Calgary, Cancun from Thunder Bay and 12 seasonal sun-destinations and New York (La Guardia) from Toronto. Porter Airlines began flying to Timmins and Washington (Dulles) from Toronto (Billy Bishop). Cargojet launched a freighter service between Hamilton, Halifax, Brussels and Cologne. Meanwhile, Air Canada suspended its Montreal-Houston, Toronto-Memphis, Toronto-Allentown and Vancouver-San Diego flights.
- Several foreign carriers launched new routes in the Canadian market in 2012, including Ethiopian Airlines (Toronto-Addis Ababa), Condor (Toronto-Frankfurt), Sichuan Airlines (Vancouver to Chengdu via Shenyang – the first flight between North America and Inland China), Virgin Atlantic (Vancouver-London), Air Greenland (Iqaluit-Nuuk), Philippine Airlines (Toronto to Manila via Vancouver), United Express (Kelowna-Los Angeles) and ABX Cargo (Vancouver-Seattle). At the same time the landscape of regional U.S. carriers changed during 2012 as a result of airline mergers. Chautauqua Airlines returned to Canada while Comair, Colgan Air, ExpressJet, Mesaba and Mesa all exited the Canadian market.
- As of December 2012, Canada's open Air Transport Agreements (ATAs) cover approximately 72 per cent of Canada's international air traffic. Canada has also concluded open agreements with or offered open agreements to countries collectively representing 91 per cent of Canada's international two-way merchandise trade. Canada now ranks third in the number of open ATAs in place according to the International Civil Aviation Organization (ICAO).
- In 2012, Canada concluded or expanded ATAs with Bahrain, Colombia, Curacao, Gambia, India, Nicaragua, Paraguay, St. Martin, Saudi Arabia, Senegal, Sierra Leone and Uruguay as part of its *Blue Sky Policy*. The Asia-Pacific and Latin America are two regions of focus for this policy in the coming years.
- The *Aerospace Review*, carried out by an independent panel and selected industry representatives, released its report, *Beyond the Horizon: Canada's Interests and Future in Aerospace*, in November 2012. It discussed public policies and programs that will help Canada maintain and build on its status as a global aerospace power and suggested policy directions that would assist in maintaining Canada's competitive edge in the global aerospace industry, the sixth largest in the world.
- Amendments to *Air Transport Regulations* enacted on December 18, 2012 mandated all-inclusive airfare advertising for travel originating in Canada, thus enabling consumers to more easily compare prices between air carriers and make more informed decisions.
- In 2012, the Canadian Transportation Agency ordered WestJet and Air Canada to provide, upon 48 hours' notice by a person with a cat allergy, a minimum five-row seating separation between the person and a cat carried as a pet in the aircraft cabin. Air Canada Express (Jazz) was ordered, upon 48 hours' notice provided by a person with a cat allergy, to ban cats carried as pets in the aircraft cabin of their smaller-size Bombardier Dash-8 aircraft.
- Amendments to the *International Interests in Mobile Equipment (aircraft equipment) Act* were enacted on December 14, 2012. They enabled Canada's ratification of and participation in, the Convention on International Interests in Mobile Equipment and its associated Protocol on Matters Specific to Aircraft Equipment (Cape Town Convention and Protocol). The Convention and Protocol are designed to create an international framework for the creation, registration (through an international registry), protection and enforcement of certain international interests in airframes, aircraft engines and helicopters. A week later, Canada deposited its instruments of ratification for the Convention and Protocol. This ratification took effect in Canada on April 1, 2013.

Environment

- In 2010, domestic aviation emitted 6.3 megatonnes (Mt) of carbon dioxide equivalent (CO₂e), accounting for 3.8 per cent of transportation-related greenhouse gas (GHG) emissions and 0.9 per cent of total Canadian GHG emissions. Between 1990 and 2010, domestic aviation's GHG emissions decreased by 11.4 per cent,

from 7.2 Mt to 6.3 Mt in spite of increased traffic thanks to continued improvements in aircraft efficiency, design and operations as well as the introduction of new aircraft. Without further mitigation action, Environment Canada expects aviation GHG emissions to increase from 6.3 Mt to 10.0 Mt between 2010 and 2020 (a total increase of 57.3 per cent, or an average of 4.6 per cent per year), due mainly to increased activity.

- In 2010, aviation accounted for 5.8 per cent of all transportation-related emissions of sulphur oxides (SO_x), 6.9 per cent of nitrogen oxides (NO_x) emissions and no more than 2.5 per cent of transportation-related emissions of fine particulate matter (PM_{2.5}), volatile organic compounds (VOC) and carbon monoxide (CO). While they only represent a small portion of transportation air pollutant emissions, aviation-related SO_x, NO_x and VOC emissions grew by 55.9 per cent, 56.6 per cent and 44.6 per cent respectively between 1990 and 2010.
- In June 2012, the Government of Canada and the Canadian aviation industry released Canada's *Action Plan to Reduce Greenhouse Gas Emissions from Aviation*, which sets an ambitious goal to improve fuel efficiency from a 2005 baseline by an average annual rate of at least two per cent a year until 2020 and reduce GHG emissions from both domestic and international aviation.
- The Action Plan builds on the success of the world's first voluntary agreement to address GHG emissions from aviation, which ended in 2012. The final results illustrated that Canadian air carriers' cumulative fuel intensity improved by 30 per cent between 1990 and 2012, surpassing the 24 per cent objective of the agreement. The Action Plan forms the basis for the Government of Canada's response to the International Civil Aviation Organization's (ICAO) Assembly Resolution A37-19, which encourages Member States to submit national action plans setting out measures each state is taking or will take to address international aviation emissions.
- The Action Plan also builds on the work undertaken by the Canadian Airports Council and Transport Canada to develop a quantification methodology for GHG emissions at Canadian airports and the efforts of NAV CANADA to identify and quantify the results of past GHG reduction initiatives in its annual CIFER (Collaborative Initiatives for Emissions Reductions) reports since 1997. NAV CANADA's 2012 CIFER report highlighted a number of technological and air space management initiatives that combine to reduce GHG emissions by an expected 14 Mt between 2011 and 2020, translating into a \$5.3-billion cost savings.
- On January 1, 2012, the European Union (EU) extended the application of its Emissions Trading System (ETS) to include GHG emissions from international aviation. In light of progress at ICAO to advance a global solution to reduce GHG emissions from international aviation, the European Commission announced in November its intention to temporarily defer the inclusion of international aviation in the ETS until January 2014.
- In January 2012, Vancouver International Airport opened a \$12-million Ground Run-up Enclosure (GRE), the first in Canada. A GRE is a three-sided, five-storey steel enclosure that redirects and reduces noise during an engine run-up conducted as part of regular aircraft maintenance. Engine run-ups are required to test engines following maintenance prior to an aircraft being returned to service.

Safety

- There were 222 aviation accidents in 2012. The 2012 accident rate (determined using preliminary data) was 5.2 accidents per 100,000 hours flown, which is lower than the 2007–2011 five-year average rate of 5.7.
- On July 4, 2012, Transport Canada announced new regulations requiring Terrain Awareness and Warning Systems (TAWS) in private turbine-powered and commercial airplanes configured with six or more passenger seats. TAWS provide audio and visual alerts to flight crews when the path of the aircraft is expected to collide with terrain, water or obstacles, thus allowing the flight crew sufficient time to take evasive action.
- On November 13, 2012, Canada and China signed an action plan to strengthen cooperation on aviation safety. The action plan will allow Canada and China to learn from each other's civil aviation programs and work cooperatively on safety issues. Through these activities, Canadian aerospace companies will gain easier access to Chinese markets, contributing to the health of the Canadian economy while maintaining the highest safety standards. This signing followed Prime Minister Stephen Harper and Premier Wen Jiabao's commitment to strengthen collaboration in civil aviation in February 2012.

- On March 18, 2012, Aveos ceased operations and began liquidating assets. Formerly Air Canada Technical Services, Aveos was spun off in 2007 and employed 1,800 in Montreal, 350 in Winnipeg and 250 in Vancouver at the time it closed its doors. Aveos performed heavy maintenance and overhaul on a contractual basis for Air Canada and several other carriers. Aveos' sudden closure forced Air Canada to seek alternate service providers.
- In March 2012, NAV CANADA continued the implementation of advanced technologies to enhance Air Navigation Service by expanding Automatic Dependant Surveillance Broadcast (ADS-B) to a 1.3-million km² area over the North Atlantic, the busiest oceanic corridor in the world. ADS-B is a next-generation air traffic surveillance system that automatically transmits flight information between aircraft and air traffic control every second, allowing for a reduction in aircraft separation minima for equipped aircraft and ultimately an increasing number of aircraft to follow the most efficient flight trajectory. This translates into significant fuel savings for airlines and lower air pollutant emissions.
- Transport Canada and Bombardier Aerospace launched a pilot project designed to augment the department's resources in aircraft certification. This project will allow Transport Canada to hire additional staff in areas such as flight testing and engineering. It will support the upcoming certification program for the C-Series. The *Aerospace Review* recommended that the department pursue such initiatives to better support growing industry demand.
- Transport Canada modernized its process for engaging stakeholders on proposed amendments to the Canadian Aviation Regulations and to discuss specific aviation safety issues in a way that is more responsive to safety priorities.

Security

- The *Canadian Aviation Security Regulations, 2012* were enacted in January 2012. These new regulations introduced airport security programs designed to enhance security management at airports and were updated and reorganized into a more use-friendly structure for the aviation industry as a whole. The *Aerodrome Security Measures* were also updated and modernized in March 2012.
- Under the terms of the 2011 Action Plan on Perimeter Strategy and Economic Competitiveness, Transport Canada, the Canadian Air Transport Security Authority (CATSA) and the Canada Border Services Agency collaborated to permit NEXUS members to enjoy expedited entry into Canada and the United States and access to Trusted Traveller CATSA Security Lines when departing from major airports. In February 2012, the program was expanded to include flights to the U.S.
- Similarly, on May 31, 2012, the governments of Canada and the United States announced an agreement whereby each other's air cargo security programs would achieve equivalent levels of security. Under this agreement, cargo shipped on passenger aircraft will now be screened only once for transportation security reasons at the point of origin and will not need to be rescreened prior to upload on an aircraft in the other country. This will reduce delays and economic costs caused by both countries screening the same cargo twice.
- Beginning on December 31, 2012, changes to Canada's *Security Measures Respecting Air Cargo* require that 100 per cent of air cargo be secure if transported on passenger flights. This means that cargo must originate from a business registered with the Air Cargo Security Program or be actively screened using one of the approved screening methods.
- In September 2012, Canada hosted the International Civil Aviation Organization's (ICAO) High Level Conference on Aviation Security. Representatives from 132 countries and 32 organizations gathered to discuss aviation security challenges. The conference focussed on key themes such as cooperation and efficiency and also examined risk and performance-based approaches designed to improve security and facilitate passenger travel.

Marine Transportation

Economic Marketplace and Infrastructure

- In 2011, marine freight traffic in Canada reached 404 Mt, an increase of 3 per cent over the 2010 tonnage. As much as 62 Mt were recorded in domestic flows, 97 Mt in transborder traffic and 245 Mt in other international traffic. Marine transportation services handled \$205.3 billion in international trade in 2011 (up 21 per cent from 2010) with \$106 billion in imports and \$99.3 billion in exports.
- In 2012, the St. Lawrence Seaway handled 38.9 Mt of cargo, representing a 4 per cent increase in volume compared to 2011, with most types of traffic posting gains. In 2011–12, the Seaway generated \$68.2 million in revenues against operating expenses of \$73.6 million. Expenditures for asset renewal totalled \$53.7 million.
- The 18 Canadian Port Authorities (CPAs) handled 61 per cent of Canada's total port traffic (285 Mt) in 2011. Operating revenues for the CPAs increased to \$489 million from \$457 million. Total operating expenses increased 7.8 per cent to \$252 million for an average ratio of operating expenditures to operating revenues of 194 per cent. Montreal and Vancouver accounted for 55.3 per cent of CPA revenues. The aggregate net income for the CPAs was 145 million in 2011, a 43.5 per cent decline from 2010. The CPAs spent 191.6 million on capital projects in 2011, a 23 million decrease despite a doubling of capital expenditures at Halifax and Toronto and a 13-fold increase at Thunder Bay. The CPAs overall return on assets was 5.5 per cent in 2011, compared to 4 per cent in 2010.
- Ridley Terminals Inc. (RTI) in Prince Rupert, a Crown corporation, handled 11.5 Mt of coal in 2012. RTI is undertaking an expansion plan to increase its capacity to 25 Mt per year, which is expected to be completed in 2014. In December 2012, the federal government announced its intention to sell Ridley Terminals Inc. through the Canada Development Investment Corporation.
- Canada's four major container ports all experienced increases in container traffic in 2012, measured in 20-foot equivalent units (TEUs). Prince Rupert reported the strongest growth in TEU, 37.6 per cent, to 565 thousand TEUs, followed by Vancouver (plus 8.2 per cent to 2.7 million TEUs), Halifax (plus 1.4 per cent to 417 thousand TEUs) and Montreal (plus 0.9 per cent to 1.4 million TEUs).
- Vancouver, Canada's busiest cruise ship port, processed 666,240 cruise passengers in 2012, up 0.4 per cent from 2011, despite the fact that the number of cruise ships calling at the port declined to 191 in 2012 from 199 in 2011.
- The Port of Quebec City enjoyed a remarkable year in 2012, handling a reported record 32.5 Mt of freight and greeting 117,000 cruise ship passengers, up 12.5 per cent and 41 per cent from 2011 respectively.
- Foreign participation in Canada's coasting trade—defined as the transportation of goods or passengers between points in Canada and any related activity of a commercial nature—has stayed relatively stable, reaching 1.8 per cent in 2011. Increased demand for foreign registered supply and support vessels in Canada's offshore environment accounts for the use of foreign vessels in Canada's maritime coasting trade.
- On June 29, 2012, the *Coasting Trade Act* was amended to allow seismic activities relating to the exploration of minerals and non-wildlife natural resources on the continental shelf of Canada to take place aboard foreign and non-duty paid vessels without the requirement of obtaining a coasting trade licence.
- The Government of Quebec released a study on the feasibility of marine freight transportation to the North Shore. The study revealed that volumes may support a regular service but that a number of challenges exist that would prevent such a project from being profitable in its first years of operation. The study also highlights social and environmental benefits of such a service.
- Groupe Desgagnés launched its 18th vessel, the *Claude A. Desgagnés*. The 139-metre ship has a 20,000-cubic-metre capacity. It will be used mainly in Northern Quebec and Nunavut.
- Fisheries and Oceans Canada (DFO) operates and maintains a national network of harbours capable of supporting the principal and evolving needs of the commercial fishing industry and the broader interests of coastal communities. It keeps harbours critical to the fishing industry open and in good repair; the value of

Gateways, Corridors and Multimodal Transportation

- Canada's Gateway and Trade Corridor approach emphasizes domestic partnerships and international engagement in order to align transportation policies and investments with international commerce in support of a stronger economy.
- Canada's Asia-Pacific Gateway reached a significant number of milestones in 2012, helping to solidify its role as a leading gateway for trade between North America and the growing economies of the Pacific Rim. Prince Rupert's Fairview Container Terminal reached 500,000 TEUs (20-foot equivalent units) and is one of the fastest growing ports in North America. Port Metro Vancouver, Canada's largest port, continued strong import and export growth and is North America's busiest export port by tonnage. Canada's success with the APGCI was the subject of a detailed study by the U.S. Federal Maritime Commission, which in many respects validated the approach to public-private collaboration, strategic investment in infrastructure and a strong national policy framework.
- In 2012–13, the federal APGCI Transportation Infrastructure Fund invested \$133.5 million to improve infrastructure in British Columbia's Lower Mainland. Projects completed include the opening of Highway 17, the eastern section of the new South Fraser Perimeter Road (\$365 million), the Brooksbank Avenue Underpass along the North Shore of Burrard Inlet (\$8.1 million) and the 80th Street Overpass project of the Roberts Bank Rail Corridor (\$7.2 million). The northeast section of the South Fraser Perimeter Road in Vancouver region opened in December 2012, offering motorists a free, alternate route via the Pattullo Bridge and the perimeter road. The APGCI is providing \$365 million towards this \$1.26-billion project and the Province of B.C. the remaining \$899 million.
- The Gateway Performance Table began in 2008 as a forum for measuring the efficiency and competitiveness of the Asia-Pacific Gateway. In 2012, the Intermodal Committee, which examines relevant metrics and works toward optimizing operations and productivity for inbound and outbound supply chains, developed a monthly scorecard that the committee uses to address operational choke points.
- Implementation of the Atlantic Gateway and Trade Corridor Strategy continued with nine infrastructure projects completed or nearly completed by the end of 2012, including port improvements at Belledune, Halifax and Saint John and airport investments at Charlottetown, Fredericton, Gander and Halifax. Another significant project completed was the twinning of New Brunswick's Route 1 to the Maine border. The Gateway's competitive advantages and assets were promoted to potential users and business decision-makers in Europe, the United States, South America and Asia. Policy and regulatory initiatives continued to be addressed in partnership with provincial governments and private-sector partners supported by Ministerial meetings with the Atlantic Gateway Advisory Council of senior private-sector executives.
- In support of the Ontario-Quebec Continental Gateway, engagement has been ongoing to identify stakeholder needs, impediments to freight transportation and potential solutions to freight issues. In particular, this includes collaboration between Transport Canada and the Société de développement économique du Saint-Laurent (SODES) (the St. Lawrence Economic Development Corporation) on optimizing the Ontario-Quebec maritime corridor and engagement with Metrolinx, Peel Region and the Grappe métropolitaine de la logistique et du transport de Montréal (Logistic and Transportation Metropolitan Cluster of Montreal, or Cargo Montreal) on the development of freight transportation initiatives supporting international trade.
- Key international agreements were signed during 2012, including a memorandum of understanding with India that aims to strengthen cooperation in road infrastructure and intelligent transportation systems and a strategic agreement with China on civil aviation, building on a leader-level commitment. High-level bilateral discussions with key international partners, including the United States, China, India, South Korea, Japan and Turkey served to identify areas for enhanced engagement and cooperation.
- Despite recent gains in efficiency at British Columbia ports and relative stability in rail performance, the average end-to-end transit time for container imports from Shanghai to Toronto via the Asia Pacific Gateway increased by 5.7 per cent in 2012. The increase was mainly due to a 7.9 per cent increase in ocean-vessel transit times crossing the Pacific. Containers entering through the Port of Montreal had a 7.8 per cent improvement in average land-side transit time compared to 2011.

-
- Transport Canada's pioneering efforts in performance measurements is attracting the interest of international organizations, such as the World Bank, the Asia-Pacific Economic Cooperation (APEC) and the Inter-American Development Bank. These efforts have allowed the department to engage in supporting APEC's commitment to increase supply-chain efficiency by 10 per cent by 2015, reducing time, costs and uncertainty.
 - In April 2012, Winnipeg's CentrePort Canada successfully shipped 250 tonnes of soybeans in a Radio Frequency Identification Technology (RFID) tag-equipped container from Manitoba to Chongqing, China. The RFID tracks the shipment throughout its journey and ensures its integrity. This trial follows a similar test in February when a container of pork meat was sent from Manitoba to Chongqing using the same technology.
 - In 2012, the Standing Committee on Transportation, Infrastructure and Communities conducted a study of Innovative Transportation Technologies. This study examined the major areas of innovation in the Canadian transportation sector and attempted to identify existing regulatory impediments that limit the commercialization and adoption of innovative new technologies. The final report is expected to be tabled in 2013.
 - In 2012, the Canadian Transportation Agency released new resource tools designed to assist persons with disabilities and transportation service providers. The Resource Tool for the Carriage of Mobility Aids on Board Planes, Trains and Ferries was developed to raise awareness of travellers, travel agents and service providers in the planning and preparation of travel involving people with mobility aids. Accessible Transportation Complaints: A Resource Tool for Persons with Disabilities and A Resource Tool for Service Providers were designed to improve access to and understanding of the Agency's process for resolving accessibility disputes through formal and informal resolution options.
 - In Toronto, construction on the Union Pearson Express connecting the busiest passenger rail and air hubs in the country—Union Station and Pearson International Airport—is well underway and aims to be completed in time for the 2015 Pan/Parapan American Games. The total budget for the Union Pearson Express is \$456 million (in 2010 dollars), including \$128 million to build the three-kilometre rail spur and a new passenger station at Pearson. The federal government, through the Canada Strategic Infrastructure Fund, is providing \$70.8 million to upgrade the Georgetown rail corridor, which will be used by both the Union Pearson Express and GO Transit commuter trains as part of its \$385 million contribution to the GO Transit Rail Improvement Program (GO TRIP).
 - In Montreal, Aéroports de Montréal (ADM) has submitted an alternative approach to its rail shuttle project between downtown Montreal and Montreal-Trudeau Airport: the Aerotrain. Instead of adding new tracks to increase rail capacity between downtown and Dorval, ADM has proposed the construction of an elevated track system for a light-rail electric train. The Airport authority is continuing to flesh out its proposal in consultation with various stakeholders.
 - Recent independent research studies have reported on the value of Canada's Gateways approach. For example, *The Containerization of Commodities: Integrating Inland Ports with Gateways and Corridors in Western Canada* by the Van Horne Institute examines the potential for inland ports to help manage the supply of shipping containers for exports and *Multimodal Freight Transportation Within the Great Lakes–Saint Lawrence Basin* for the Transportation Research Board of the United States by CPCS Transcom discusses Canada's Gateways and Trade Corridors as an effective approach to multimodal planning and multi-jurisdictional funding.