

SENATE



SÉNAT

CANADA

April 2013



ONE SIZE DOESN'T FIT ALL:

The Future Growth and Competitiveness of Canadian Air Travel

Standing Senate Committee on Transport and Communications

The Honourable Dennis Dawson, *Chair*

The Honourable Stephen Greene, *Deputy Chair*



*Ce rapport est aussi disponible en français.
Des renseignements sur le comité sont accessibles sur le site :*

www.senate-senat.ca/TRCM.asp

Information regarding the Committee can be obtained through its web site:

www.senate-senat.ca/TRCM.asp

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Photos in this report provided by the airport authority of the Toronto-Lester B. Pearson International Airport and by the governments of Nunavut and the Northwest Territories.



THE COMMITTEE

The following Senators have participated in the study:

The Honourable Dennis Dawson, Chair of the Committee

The Honourable Stephen Greene, Deputy Chair of the Committee

and

The Honourable Senators:

Pierre-Hugues Boisvenu, Norman E. Doyle, Art Eggleton, P.C., Leo Housakos, Michael L. MacDonald, Terry M. Mercer, Pana Merchant, Betty E. Unger, Josée Verner, P.C., Rod A.A. Zimmer

Ex-officio members of the Committee:

The Honourable Senators Marjory LeBreton, P.C. (or Claude Carignan) and James Cowan (or Claudette Tardif)

Other Senators who have participated on this study from time to time:

The Honourable Senators David Braley, Ethel Cochrane, Nicole Eaton, Francis Fox, P.C., Linda Frum, Mobina S.B. Jaffer, Fabian Manning, Elizabeth (Beth) Marhall, Yonah Martin, Percy Mockler, Jim Munson, Donald Neil Plett, Michel Rivard, Fernand Robichaud, P.C., Bob Runciman, Terry Stratton.

Staff of the Committee:

Mr. Zachary Alaoui, Analyst, Parliamentary Information and Research Service, Library of Parliament;

Mr. Alexandre Lavoie, Analyst, Parliamentary Information and Research Service, Library of Parliament;

Mrs. Keli Hogan, Clerk of the Committee (40th Parliament, 3rd session);

Mr. Jean-Yves LeFort, Clerk of the Committee (41st Parliament, 1st session);

Ms. Nicole Raymond, Administrative Assistant.

ORDER OF REFERENCE

Extract from the *Journals of the Senate* of Wednesday, June 15, 2011:

“The Honourable Senator Dawson, pursuant to notice of June 14, 2011, moved:

That the Standing Senate Committee on Transport and Communications be authorized to examine and report on current on emerging issues related to the Canadian airline industry, including but not limited to:

- (a) its performance and long-term viability in the changing global market;*
- (b) its place within Canada;*
- (c) its business relationship with their passengers; and*
- (d) its important economic effect in the Canadian communities where airport are located.*

That the papers and evidence received and taken and work accomplished by the committee on this subject since the beginning of the Third Session of the Fortieth Parliament be referred to the committee; and

That the Committee report to the Senate from time to time, with a final report no later than June 28, 2012 and that the committee retain all powers necessary to publicize its findings until 180 days after the tabling of the final report.

The question being put on the motion, it was adopted.”

Extract from the *Journals of the Senate* of Tuesday, March 27, 2012:

“The Honourable Senator Dawson moved, seconded by the Honourable Senator Moore:

That, notwithstanding the Order of the Senate adopted on June 15, 2011, the date for the presentation of the final report by the Standing Senate Committee on Transport and Communications on emerging issues related to the Canadian airline industry be extended from June 28, 2012 to November 30, 2012.

The question being put on the motion, it was adopted.”



Extract from the *Journals of the Senate* of Thursday,
November 1, 2012:

*“The Honourable Senator Dawson moved, seconded by the
Honourable Senator Moore:*

*That, notwithstanding the Order of the Senate adopted on
June 15, 2011, and on March 27, 2012, the date for the presentation
of the final report by the Standing Senate Committee on
Transport and Communications on emerging issues related to the
Canadian airline industry be extended from November 30, 2012
to March 28, 2013.*

The question being put on the motion, it was adopted.”

Extract from the *Journals of the Senate* of Tuesday,
March 5, 2013:

*“The Honourable Senator Dawson moved, seconded by the
Honourable Senator Moore:*

*That, notwithstanding the Order of the Senate adopted on June 15,
2011, on March 27, 2012, and on November 1, 2012, the date for the
presentation of the final report by the Standing Senate Committee
on Transport and Communications on emerging issues related to
the Canadian airline industry be extended from March 28, 2013
to April 30, 2013.*

The question being put on the motion, it was adopted.”

Gary W. O’Brien
Clerk of the Senate

LIST OF WITNESSES AND SUBMISSIONS

Available on the web site:
www.senate-senat.ca/TRCM.asp



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EXECUTIVE SUMMARY

Airports play a vital role in Canada's transportation network. They enable ease of access for all sectors and industries in our country. Large international airports in Canadian cities link Canada to international destinations and markets, while regional airports feed these large airports. In Canada's North, airports are the most important infrastructure used to connect the enormous and sparsely populated territory.

Canadian airports generate over \$45 billion in economic activity and provide 200,000 jobs across the country. Despite the industry's successes in Canada, it faces serious challenges as it tries to adapt to a competitive and ever-evolving global industry. When the Standing Committee on Transport and Communications ("the committee") began its study on emerging issues related to the Canadian airline industry, 4.2 million Canadians were opting to drive to U.S. airports in order to take advantage of cheaper flights. Today this number stands well above 5 million. At a rate of half a million passengers per year, cross border leakage represents a growing amount of lost revenue for the Canadian industry and all levels of government.

Over the course of its study on the emerging issues related to the Canadian air transport industry, the committee heard testimony from 98 different witnesses. Their testimony depicted the complex and competitive global and domestic context in which this industry is evolving (see Appendix I). In short, it is apparent that Canada's air transportation industry lacks a clear national strategy.

As discussed in its interim report entitled *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*,¹ the committee is convinced that Canada needs a single, cohesive National Air Travel Strategy to chart a new course towards increased air travel in Canada. The committee also remains confident that this strategy should be predicated on treating Canadian airports of all sizes as economic spark plugs rather than as a source of public revenue.

While the committee does not pretend to have the expertise to inform the particulars of a National Air Travel Strategy, it would like to offer some specific direction on how Northern and Regional airports should fit into this overall national strategy. In short, the Government of Canada should break with the past and stop using the "one size fits all" approach that has prevailed in Canadian aviation policy over the last two decades.

Regulations and policies have all too often been adopted irrespective of their specific impact on northern and regional air travel. A National Air Travel Strategy must therefore take into account the specific needs and challenges of all regions, particularly the isolated north. Furthermore, northern and regional air infrastructure must be improved.

The committee is pleased to present its final report on the future growth and global competitiveness of the Canadian air travel industry. By focusing on ways to strengthen the industry and provide better access to air travel for all Canadians, the recommendations in *One Size Doesn't Fit All* will lead to a stronger economy as well as stronger and more prosperous communities throughout Canada.

1. GENERAL OBSERVATIONS FOR A FUTURE NATIONAL AIR TRAVEL STRATEGY

RECOMMENDATION:

The committee recommends that Transport Canada, together with the Department of Finance, bring all relevant stakeholders to the table to establish a National Air Travel Strategy.

From the outset of its study, the committee noted that stakeholders described Canada's air transport industry as suffering from a lack of coordinated direction. For this reason the committee's principal recommendation in its interim report was for the creation of a single, cohesive national air travel strategy for Canada.

The committee remains convinced that Canada needs to develop a national air travel strategy. The need for a strategy is justified by the fact that representatives from across the air transportation industry continue to characterize the sector as one which is fraught with multiple interests that sometimes conflict with one another. This has resulted higher costs for air travel in Canada. Cross border airport passenger leakage from Canada to the United States is one of the most significant consequences of this problem.² As discussed in more detail later in this report, the lack of coordination also has an impact on the air transportation industry in northern and remote regions. These regions lack the proper infrastructure to make air travel effective and face regulatory restrictions which needlessly increase operations costs and foster uncertainty.



The Committee wishes to leave to the experts, who are in a better position to identify how the industry can achieve its full potential, the great task of determining the content of this strategy. However, the committee would like to offer suggestions to guide the strategy's development. These suggestions were put forward many times during the committee hearings.

The strategy should have a simple goal. As the committee highlighted in *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*, the countries that have successfully adopted air transportation strategies established a simple goal that could be used to measure, justify or deny proposals for the industry.³ In a country as large as Canada, where air transportation seems a natural choice, this objective could simply be to encourage air travel as a means of transportation. An easy way to measure success would be increased air traffic in Canada.

Cabotage and the exodus of Canadian passengers to U.S. airports are two issues that should be examined thoroughly as part of the development of a national strategy.

Canada's air industry – the sum of all its aviation stakeholders – must be directed through a clear overarching national policy. The committee remains convinced that if the entire industry can move in concert towards the same goals, value will be unlocked and added to the overall national economy.

2. NORTHERN AND REGIONAL AIR INDUSTRY WITHIN THIS FUTURE STRATEGY

In Canada's North and other remote areas, air travel is often the only reliable means of year-round transportation and is essential to moving passengers and cargo.⁴ Several witnesses testified that the availability of road and rail networks is extremely limited in northern Canada. This situation results mainly from the fact that Canada's northern population, which accounts for roughly 0.3% of country's entire population, is spread over 39.3% of Canada's total land mass.⁵ As such, air transport is “a lifeline to the communities,” in the Canadian North.⁶

In the regions, air transportation plays an important role in job creation and increased productivity in several of the country's economic sectors. Using regional airports as their base, the airline industry offers a range of services and activities, such as “medical evacuations, training schools, business aviation, aerospace industries, forest fire fighting activities, charter activities, crop spraying activities, and aircraft maintenance.”⁷ According to the Canadian Airports Council, Canada's airports generate over \$45 billion in economic activity and have a cumulative annual payroll of more than \$8 billion.⁸ Other witnesses attested that airports, along with their related infrastructure, help make communities more accessible and ultimately increase the possibility for all kinds of private investment, both domestic and foreign.⁹ According to Professor Savard of the University of Sherbrooke, studies have shown that:

Regional airports have a significant impact in terms of complementarity, in particular with certain sectors [such as] the hotel and restaurant industries, which will benefit from an increase in the number of conferences, and tourism [...] The presence of airports is also very beneficial for the manufacturing sector. It helps facilitate exports and imports of [...] goods produced [and] the import of technology [...] The presence of an airport stimulates the growth of businesses in the research and development sector [and] supports the establishment, retention and expansion of head offices.¹⁰

Among the challenges, various witnesses testified that the effects of market liberalization in the airline industry have yet to fully materialize for Canadians living in northern and regional communities. These witnesses explained that in traditional marketplaces consumers benefit from competition because it usually entails additional supply, but given the high cost of operation and the limited number of customers in northern and non-urban regions “the extra supply does not necessarily generate extra demand and drive down the cost of the service.”¹¹



Based on witness testimony, it is clear that market conditions for air travel are considerably different in northern Canada than they are in the south. As one witness noted:

In the South, demand varies greatly with the state of the economy and ticket pricing. In the North, air service is an essential service where demand is remarkably constant and very price inelastic. In the South, modern fuel-efficient aircraft are essential to be competitive. [...] In the South, increased competition reduces prices, while in the North fixed costs of operation and price inelasticity make lower prices from higher competition unsustainable in the long run, and particularly in smaller markets can actually increase prices.¹²

The northern market is particularly small and growth is limited, which makes air carriers operating in the North particularly vulnerable to competition.¹³ As explained to the committee:

[W]hen two airlines service a small northern community that is capable of filling a 20-seat aircraft, having both airlines compete for passengers in that market can lead to two airlines flying with a half-full aircraft. Given that the cost of operation of the aircraft is not affected significantly by whether there are 10 or 20 passengers on the plane, the increased competition will actually serve to drive up the average cost of each seat in the marketplace.¹⁴

This explains the prevailing market structure of air transport services in northern and remote locations. The committee heard that most air carriers charge premiums on heavily travelled routes in order to subsidize service on less travelled routes.¹⁵ When a new air carrier competes with existing carriers on the most profitable routes, this may have the benefit of reducing the ticket price on those routes, but also has the effect of increasing the ticket price on routes serving smaller communities.¹⁶

Transport Canada officials confirmed this state of affairs and told the committee that, while the costs of some north-south routes have decreased due to the expansion of the activities of southern airlines, the costs of other intra-northern routes have, in fact, increased.¹⁷ Thus, when competition increases and new players enter the market for these profitable routes, the existing airlines are no longer able to subsidize their less travelled routes at the same rate.

We have made a significant and important commitment to the North, which is to serve the North, which is a very small market. Our opportunities for growth there are limited. As a result, we are extremely sensitive to any increase in the level of competition.

Tracy Medve, President, Canadian North

Because of this market structure, the committee believes that any efforts to increase competition in northern and remote regions must be applied with caution. In these regions, the focus should be on improving the essential infrastructure needed to make the air industry more efficient. That is why the committee believes that a comprehensive national strategy for the air transportation industry must take into account the specific characteristics of these regions, particularly in terms of the preparation of regulations and the funding of airport infrastructure.

a. Regulation and the specific characteristics of northern and remote regions

What is particularly vexing to northern operators is the one-size-fits-all approach to regulation.

Stephen Nourse, Executive Director, Northern Air Transport Association

The committee found during the course of its study that some regulatory requirements are too stringent for northern and remote regions. Specifically, they place additional costs on industry stakeholders, such as airport managers, and hinder the development of air transportation in these regions.



One example cited by several witnesses who appeared before the committee concerns the intention to require all airports to have a Runway End Safety Area (RESA) at the end of every runway.¹⁸ Stakeholders told the committee that, at some regional and northern airports, certain geographic features make it impossible to extend the runway. In such instances, the only solution will be to shorten the runway by 90 to 120 metres.¹⁹



Chesterfield Inlet

Many stakeholders told the committee that they were concerned this measure would have a negative impact on air transportation in northern and remote regions.²⁰ Many runways would have to be shortened, thereby making it even more difficult for small northern airports to accommodate larger and more modern aircraft. Some air carriers operating in the North have postponed plans to modernize their fleets as they are not certain that their aircraft will be able to use these runways in the future:

I will give an example that we are currently living with today. One of our airlines [Perimeter] is looking to invest approximately half a million dollars into each of our 19-seat aircraft to install a glass cockpit, which will enable these aircraft to utilize some of the most modern guidance and weather equipment. This equipment gives the aircraft the ability to land safely in inclement weather situations, which are more common in the North than in the South. [...]

Unfortunately, [...] Perimeter is now reconsidering this investment after spending significant time and money funding the development of a prototype for this type of aircraft because of certain Transport Canada mandatory standards that are being considered for implementation on expanding the runway end safety areas or RESAs. In a lot of northern airports the runways are located in areas where it is simply impossible

to make these RESAs available because of the topography or the cost of expansion. [...]

As the runways are shortened to take into account the RESAs, the size of aircraft that can use them also decreases. In many of these northern airports this would result in the use of single-engine aircraft. Therefore, Perimeter is not willing to make this type of investment if the southern-based regulation takes away its ability to fly these aircraft in the North.

*Michael Pyle, President and CEO,
Exchange Income Corporation*

An official from the City of Iqaluit informed committee members of a situation involving Transport Canada guidelines on land use in the vicinity of airports, which state that food waste landfill sites cannot be located within 8 km of an airport.²¹ This requirement is intended to keep birds away from areas where they could endanger aircraft during take-offs and landings. In the case of Iqaluit, and likely many other towns in the North, a road would have to be built because there is currently no road located farther than 8 km from the airport serving the community. The municipality would face significant expense, even though there are relatively few birds to pose a danger to the aircraft. The committee is aware that the guidelines on land use near airports are only recommendations,²² but the fact that there is no exception for the North means that municipal managers are not sure which requirements they must follow.

The committee encourages the federal government and its departments and agencies to adapt the regulations, policies they develop to the specific needs and realities of each region and community. These regulations and policies should allow stakeholders in the air transport sector to develop solutions that are tailored to individual situations.

RECOMMENDATION:

The committee recommends that within a potential National Air Travel Strategy, future air transportation regulations, policies and funding programs take into account the special needs and unique challenges in regions and the North.



b. Northern and Regional Air Transport Infrastructure

Infrastructure is vital to the effectiveness of air transportation. Among other things, air transport infrastructure includes airports, terminal buildings and runways, as well as the air navigation system. Added to these key components are the various elements of related infrastructure, such as the roads and rail lines linking airports to the communities they serve. Although the country's principal air infrastructure is adequate, the committee heard testimony that the infrastructure serving remote and northern communities may not be sufficient to meet all future needs.

As was discussed in *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*, Canada's air transport infrastructure has improved considerably in the last 20 years.²³ The witnesses who appeared before the committee, however, painted a different picture of the situation in Canada's northern and remote regions. Air transport is essential to the welfare of the communities in these areas, "bringing them health care, foodstuff, mail, fuel and other essential perishable goods,"²⁴ as one witness put it. From what the committee heard, however, the growth of air transport in these regions is restricted by the current infrastructure.

According to witness testimony, the greatest infrastructure challenge for northern and remote airports is the state and availability of runways. As a whole, there appears to be an insufficient number of paved runways in the North. The Northern Air Transport Association told the committee that there are currently only 10 paved runways across all three territories, whereas Alaska, despite its smaller geographic size, has 61.²⁵ Northern air carriers are therefore restricted in the type of aircraft that they may operate; the Boeing 737-200, an aircraft that was designed in the 1970s, is the most modern aircraft available that is capable of landing on gravel.²⁶ The president of Canadian North informed the committee that "there is no new-generation jet aircraft certified to operate onto an unprepared surface. None will be built, and if they were to be built none of the northern carriers could afford to acquire them."²⁷

In addition to the lack of paved runways, the committee also heard that a significant portion of northern airstrips are 1,200 metres or shorter. In many cases, this is due to geographical constraints. A minimum distance of 1,520 metres is required to safely land the newer generation of small aircraft.²⁸ This situation places additional constraints on the types of aircraft that the airports can accommodate. Moreover, according to

witnesses, "to further exacerbate the problem, we have proposed legislation that has the potential to limit or even reduce the available runway length in many northern airports as a means of accommodating Runway End Safety Area requirements."²⁹

The witness representing the Northern Air Transport Association pointed out that the lack of paved runways is forcing air carriers to use older aircraft, thereby increasing operating costs in northern and remote areas.³⁰ The committee heard that older aircraft consume more fuel and require more maintenance than newer aircraft.³¹ The absence of paved runways and the insufficient length of existing runways are also factors restricting the size of aircraft that can be used by air carriers.³² The committee noted that it would be more efficient to use larger aircraft in many locations.³³

As for regional airports, the witness representing the Québec Airport Council told the committee that the runways at many small regional airports were in poor condition and in need of repair.³⁴ He also told the committee that this would affect the viability of airports, since their capacity – in particular the condition of infrastructure and the length of runways – was a key factor in attracting air carriers.³⁵

A lack of meteorological information is another infrastructure-related challenge that stakeholders touched upon over the course of the committee's study. Witnesses testified that "over the years, for budgetary reasons, Arctic weather stations have been shut down, upper air monitoring has been cut back, and many airports have only limited hours of [community aerodrome radio station service.] (sic)"³⁶ More precisely, community aerodrome radio stations (CARS) operate on specific timetables and often experience staffing shortages, which further reduces their operational hours and results in a significant number of flights being diverted or cancelled.³⁷ As one witness stated:

[W]ith limited data getting into climatic modeling computers, especially at night, the overall forecast accuracy is degraded. There are problems getting weather information for emergency flights during the nights. [...] The situation is exasperated in the locations relying on manual observations by the CARS operators, most of which are very good but, in some locations, the level of service and reliability can be problematic.³⁸



This lack of meteorological information means that some flights simply cannot go ahead because the required information on weather conditions at the destination airport is unavailable.³⁹

The impact of climate change was also mentioned as a challenge for northern airport infrastructure. The committee heard that as the Arctic warms, the permafrost on which many runways are built is softening and hazardous fissures and bumps are forming.⁴⁰ Melting permafrost may also become problematic for northern terminals which, for the most part, were built by driving steel piles into the permafrost. Various witnesses expressed concerns that these piles may be conducting heat into the permafrost, thereby destabilizing infrastructure. This is in addition to the fact that most of these airports have been built in proximity to water and are unlikely to withstand a significant rise in sea level. The committee heard that in one particular case, at the Tuktoyaktuk airport in the Northwest Territories, the runway is already eroding and experiencing stability issues as a result of increased wave action.⁴¹

Other examples of deficient infrastructure were brought to the attention of the committee. For instance, some airports are not equipped with a modern instrument approach system, making it impossible for aircraft to land there under foggy conditions.⁴² The committee was informed that up to 25% of flights can be cancelled or diverted at certain airports,⁴³ which seriously undermines the reliability of air services provided to certain communities.⁴⁴ The committee also noted during its visits to Iqaluit and Yellowknife that the air terminals were too small, limiting the frequency of flights. Ultimately, it is consumers in northern and remote communities who have to shoulder the burden created by inadequate air transport infrastructure.

Witnesses shared various ideas on ways to improve air infrastructure in the North. The most oft-cited idea was to increase the use of GPS technology and automated weather observation systems (AWOS). The committee heard that “most GPS approaches in the North are still simply overlays of old circling approaches and bring none of the real improvements that the technology is capable of.”⁴⁵ NAV CANADA and Transport Canada set specific landing criteria, such as obstacle clearance, based on the accuracy of the surveys of the surrounding area and GPS signals. As surveys and overlays are fine-tuned and the GPS signals become more accurate, the peak height at which pilots must commit to landing can be lowered substantially, thereby reducing the number of missed approaches in northern or remote locations.⁴⁶ In addition, “weather reporting in the North would

obviously be greatly enhanced by the installation of more AWOS with video capability, and it would allow [for] 24-7 coverage, without related staffing issues.”⁴⁷ In spite of NAV CANADA’s recent efforts, much of the Northwest Territories and Nunavut continues to have poor AWOS coverage. According to the Northern Air Transportation Association, the main impediment to increasing the number of AWOS installations has been funding, with each unit costing between \$500,000 and \$1 million, depending on the location.⁴⁸

Many witnesses told the committee that the main obstacle to regional and Northern air transport infrastructure renewal is cost. This problem has two aspects. First, the materials and construction costs to improve infrastructure at northern and more remote locations in Canada is very high compared with rest of the country. Second, municipalities that operate northern and remote airports rarely have the necessary tax bases to support large infrastructure projects.

However, the committee did ascertain that airport managers are able to implement solutions to finance the modernization of their infrastructure. For instance, the committee was informed during its trip to Iqaluit that the government of Nunavut, which manages the Iqaluit airport, undertook an expansion and modernization of the airport with the aid of a public-private partnership. When the committee visited Yellowknife, it was told that, in order to save money, the government of the Northwest Territories pooled Yellowknife’s road maintenance and airport runway maintenance services. In the future, advances such as global positioning system (GPS) technology and automatic weather stations should reduce the cost outlay for the equipment needed to improve the efficiency of air transport in remote and northern locales.⁴⁹ Officials also told the committee that NAV CANADA has introduced new air navigation technology on the Labrador coast and plans to extend its use to the High Arctic.⁵⁰

The federal government also supports regional and local airport infrastructure. Transport Canada officials emphasized that the federal government recognizes the important role northern transportation infrastructure plays in the lives of many Canadians and Canadian businesses. As such, the federal government has made significant infrastructure investments in northern and remote airports under initiatives such as the Airports Capital Assistance Program (ACAP) and the Building Canada Plan.

Under ACAP, airports that are not owned by the federal government and that offer year-round regularly scheduled

passenger flights can receive funding for up to 100% of project costs.⁵¹ Eligible projects include runway rehabilitation initiatives, the purchase of firefighting equipment and heavy runway maintenance equipment, and safety-related projects in air terminals.⁵²

In total, the Government of Canada has committed \$556 million to airports under the ACAP program during this program's 17 years in existence.⁵³ These investments are in addition to other targeted activities that the federal government has carried out in support of the infrastructure needs of northern communities. For example, the government recently completed a study on northern infrastructure needs, and has earmarked funding for research on the impacts of melting permafrost.⁵⁴

While witnesses from all sectors acknowledged the importance of federal funding that is currently provided for some airport infrastructure improvements, many expressed concerns about the amounts of funding available. At a time when new federal regulations are obliging airports to make certain infrastructure upgrades, most witnesses who appeared before the committee deemed that the ACAP is oversubscribed.⁵⁵ To this effect, one witness testified:

[S]ignificant public investments are made in every other mode of transportation, including roadways, railways and ports. We just ask that our national airport infrastructure [...] be considered in a similar vein as other transportation modes.⁵⁶

Other witnesses complained that current funding programs were not designed to allow for the implementation of solutions to improve infrastructure at a lower cost. According to one witness who appeared before the committee, the requirements of ACAP “are simply too restrictive in many ways. Airports that are too small or too large are not eligible. The qualifying projects are very restrictive, and the red tape is extensive.”⁵⁷ For example, the committee was informed that an airport survey, which would be required for new GPS technologies to replace traditional navigational aids, cannot be funded under ACAP.⁵⁸ The committee encourages the federal government to adapt its programs so that air industry stakeholders can develop solutions that best meet the needs and realities of each region and community.

The economic boom taking place in Canada's North and other regions could lead to increased demand for air service in the future. Because of the significant increase in resource development activities, the annual flow of traffic at the Fort McMurray Airport has risen from 102,000 passengers in 1999 to 825,000 passengers today.⁵⁹ Airport infrastructure requirements must be addressed in order to capitalize on the economic potential of the North and accommodate the expected increase in demand from businesses and individuals.⁶⁰

As a result, some airports will require longer runways to receive larger aircraft, safer undershoot and overrun areas, larger turnaround facilities and taxiways, hangar space to store aircraft overnight, maintenance and cargo storage facilities, snow removal capabilities, and larger fuel storage tanks.⁶¹ When the committee visited Nunavut and the Northwest Territories, officials from the territorial governments, which are responsible for managing airports within their borders, presented several airport and air terminal expansion projects. Farther south, the Fort McMurray airport, which has been one of North America's fastest growing airports in terms of passenger numbers over the past eight years, has plans to open a terminal five times the size of the current one.⁶²

If the economic development forecasts for the North come to pass, the federal government will benefit from the taxes and royalties collected. Companies involved in resource development in the Northwest Territories and Nunavut currently pay royalties to the federal government.⁶³ While the territorial governments will receive a portion of these royalties under future devolution agreements,⁶⁴ a significant portion (half in the case of the Northwest Territories⁶⁵) will continue to be paid to the federal government. The committee believes that the federal government must play a role in developing the infrastructure to support economic development in these regions, including airport infrastructure.



Fort Smith



RECOMMENDATION:

The committee recommends that regional and northern airport infrastructure improvements must be a priority in order to encourage economic growth in Canada's remote and northern regions.

3. OTHER RECOMMENDATIONS

a. *Decisions and Accountability of Airport Managers*

In *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*, the committee noted that most witnesses claimed to be satisfied with the results of the NAP, particularly with regard to NAS airports.⁶⁶ A number of witnesses told the committee that the decision to transfer the management of the country's principal airports to CAAs had contributed to the revitalization and enhancement of Canada's airport infrastructure. Today, this infrastructure ranks number one in the world,⁶⁷ but at a high cost for Canadian travellers.

Several witnesses expressed concerns about the governance of airports. Some felt that the composition, transparency and accountability of CAA boards of directors could be improved. For example, representatives of the Canadian Tourism Commission pointed out to the committee that, "in the overall air policy environment, customers and communities have been underrepresented. It would be helpful to have more communities and end users represented in many areas."⁶⁸ Similarly, Professor Fred Lazar told the committee that, in his opinion, airlines and passengers were underrepresented on the boards of directors of CAAs, and he suggested that such boards would be more accountable if these groups were better represented.⁶⁹



During their appearance before the committee, airlines were asked if they would like to have more representation on airport authority boards. Air Canada replied that although the current rules do not allow for additional stakeholder representation, "obviously we would like greater input and whether that is in the form of board representation or a formal mechanism through changes to airport governance would be positive."⁷⁰ For its part, WestJet was cautious about increased airline representation on the airport authority boards, noting that "the challenge that we face is that on those top four or five airports, we would have maybe one seat at the board and the board might constitute 12 people."⁷¹ According to WestJet, if the airline was to assume accountability by joining an airport authority board, it would also like to have "a sufficient level of influence in those decisions" and one seat at the board would not provide this.⁷²

The Greater Toronto Airport Authority (GTAA) and Aéroports de Montréal also expressed concern about airline representation on the airport authority boards. As the GTAA official told the Committee, "if you have representation from people who are currently active, believe me, this is a very competitive industry, and the notion that you are going to get someone who will be able to speak in a way that is objective is not going to happen."⁷³

The Canadian Airports Council responded to the concerns about airport authority governance and accountability raised before the Committee, noting that:

The leases in place between the federal government and airports outline clear requirements in both of these areas. Airport leaders report to a board of directors with local representatives nominated by federal, provincial and municipal governments and local community-based groups. Our finances are published in annual reports. We have annual meetings and public meetings. We consult on changes to fees, capital investment programs and master planning and terminal design.⁷⁴

In addition, the Council pointed out that under the agreement on airport upgrade costs between ATAC and the NAS, airports must submit proposed capital programs to airline companies before implementing them.⁷⁵



The committee acknowledges that the current governance model for airports has produced excellent results in terms of airport infrastructure. As the committee pointed out several times in *The Future of Canadian Air Travel: Toll Booth or Spark Plug?* and in the present report, the contexts in which Canada's various airports operate often differ considerably. Airport managers consequently must have the necessary latitude to apply appropriate measures in each of these contexts.

Nevertheless, the committee also has concerns about the accountability of those entrusted with the management of airports. In the committee's view, it is essential that airport authorities be accountable for their management. Airports are public infrastructure that must be administered with a view to the collective well-being of all Canadians. This does not mean that all of the actions of airport operators must be audited; governance by local interests has proven to be effective. However, the committee believes that airport managers should be accountable to a third party for their decisions.

RECOMMENDATION:

The committee recommends that Airport Authorities establish review mechanisms that would allow for stakeholders and airport clients to better scrutinize decisions made by the Airport Authorities.

b. Human Resources and the Future Requirements of the Air Transport Industry

Although not directly under the purview of the Government of Canada nor within our scope to inform a future national air strategy, the committee wishes to underline some human resources issues within the industry and make a recommendation therein.

The need for qualified personnel poses challenges to the air industry as it grows. Many witnesses who appeared before the committee alluded to a situation where the rapid pace of market liberalization has produced long-term human resource challenges for the airline industry in Canada, especially for those operating in northern and remote regions of the country. As one witness noted: "The higher number of people due to retire, combined with an under-supply of youth entering the industry, will bring significant challenges for the aviation industry in Canada."⁷⁶

In British Columbia, the committee heard that "many pilots who have the qualifications and who may have been laid off

during the economic downturn are now seeking employment overseas or in the U.S."⁷⁷ At the same time, the committee heard from several witnesses who testified that recruiting new pilots is increasingly challenging. The British Columbia Aviation Council warned of the potential impact of the decline in enrolment in vocational schools that have aviation programs as well as the lack of competitive starting salaries for those who choose to pursue a career in the Canadian aviation industry.⁷⁸ These concerns were also brought forth by the Air Line Pilots Association who testified that "a student may spend as much as \$70,000 to obtain qualifications to find a starting salary in the \$18,000 a year range" with little to no financial assistance available for student pilots.⁷⁹ As an example, a witness told the committee a personal story that reflects that situation:

My neighbour's son is a 19-year-old who wanted to get into aviation. He spent a lot of time talking to me. After looking at the numbers, he is going to become an electrician. He looked at it and said that with the cost of becoming an electrician versus a pilot, and what he could potentially make, he will go into the trades. That is the reality now.⁸⁰

The needs are particularly acute for regional and northern air operations. One northern industry representative pointed out that small air carriers often serve as incubators of personnel for national and international airlines such as Air Canada.⁸¹ As a result, as one witness representing the Association québécoise du transport aérien told the committee, "massive recruitment efforts put forth by airline companies have created a turnover rate of more than 75% for small companies based in Quebec."⁸²

[...] when pilots start flying, they fly small, charter, single-engine aircraft and gradually move up in gauge. When they first become commercial pilots, they tend to fly into communities with difficult conditions and limited resources. As they become more experienced pilots, they graduate to international airlines and fly into bigger, better equipped airports. One of the great ironies of the business is that the younger pilots tend to fly into remote communities.

*Michael Pyle, President and CEO,
Exchange Income Corporation*



The growing trend among Canadian airlines to bring in foreign pilots was another long-term human resource challenge that was discussed over the course of the study. The Air Line Pilots Association (ALPA) suggested that rather than using the labour market to fill personnel shortages, some Canadian air carriers are taking advantage of certain federal programs to reduce their costs.⁸³ Human Resources and Skills Development Canada's Temporary Foreign Worker Program was cited in this respect. This program "enables employers to hire foreign workers on a temporary basis to fill immediate skills and labour shortages, when Canadian citizens and permanent residents are not available to do the job."⁸⁴ The ALPA is of the opinion that some airlines companies are hiring pilots under this program, fully knowing that Canadian pilots are available for the jobs. Doing so effectively allows these airlines to hire foreign pilots at better rates and eliminates any costs that they may incur from training Canadian pilots on various models of aircrafts. One example brought to the committee's attention saw one airline that normally has 155 pilots and 10 aircraft bring in 200 additional pilots and 19 aircraft from abroad.⁸⁵ According to Captain Adamus from the Air Line Pilots Association:

we have pilots who are on the street and are going to be using our social programs to supplement their income, and we have foreign pilots coming in that are not paying Canadian income tax or contributing to our social programs, there is an issue.⁸⁶



Kimmirut

It is essential to ensure the viability of the Canadian airlines that the federal government look at the sector's need for qualified personnel. A lack of qualified individuals could seriously impede the air transport industry's future capacity to expand, thus further reducing competition in this sector.

RECOMMENDATION:

The committee urges Canadian air carriers to support the training and long term development of Canadian pilots and recommends that Transport Canada ensure that foreign pilots employed by Canadian air carriers, meet all safety, security and professional requirements.

4. CONCLUSIONS AND RECOMMENDATIONS

The 1990s saw a major shift in Canada's policy on air transport. The federal government stepped away from its predominant role in the development of aviation in Canada and assigned the task to local communities and private-sector stakeholders it felt would be better equipped to drive this economic sector forward. In general, based on the testimony heard by the committee, this policy has proven to be a success. As discussed in this report, the air transport industry has achieved tremendous growth in recent years. The major components of Canada's airport infrastructure have developed so well that they are now among the finest in the world.

Despite these huge advances, we still have a long way to go. On the one hand, competition in Canada's air transport sector remains extremely weak compared to the level of competition that exists in comparable markets, such as the United States. Market liberalization notwithstanding, the costs imposed on this industry are such that the fees paid by Canadian consumers are among the highest in the world. On the other hand, it is apparent that the infrastructure in northern and remote regions is inadequate to meet the future needs of the communities currently being served as well as Canada's economic development needs. All of this is playing out against a backdrop of increasingly scarce qualified personnel. The time has come, therefore, to recognize the importance of air transport for Canada, and to adopt measures to stimulate the growth of this sector.



Accordingly, the committee has prepared the following recommendations for the Government of Canada, with the aim of enhancing competitiveness in the Canadian air transport sector while also increasing and facilitating air travel in this country.

RECOMMENDATION 1:

The committee recommends that Transport Canada, together with the Department of Finance, bring all relevant stakeholders to the table to establish a National Air Travel Strategy.

(This recommendation can also be found in the committee's interim report)

RECOMMENDATION 2:

The committee recommends that within a potential National Air Travel Strategy, future air transportation regulations, policies and funding programs take into account the special needs and unique challenges in regions and the North.

RECOMMENDATION 3:

The committee recommends that regional and northern airport infrastructure improvements must be a priority in order to encourage economic growth in Canada's remote and northern regions.

RECOMMENDATION 4:

The committee recommends that Airport Authorities establish review mechanisms that would allow for stakeholders and airport clients to better scrutinize decisions made by the Airport Authorities.

RECOMMENDATION 5:

The committee urges Canadian air carriers to support the training and long term development of Canadian pilots and recommends that Transport Canada ensures that foreign pilots employed by Canadian air carriers, meet all safety, security and professional requirements.

RECOMMENDATION 6:

The committee recommends that Transport Canada establish and implement a plan to phase out ground rents completely over time for airports that are part of the National Airport System (see Appendix II).

(This recommendation can also be found in the committee's interim report)

RECOMMENDATION 7:

The committee recommends that, concurrent with the long-term plan of ending airport ground rents, Transport Canada transfer federally owned airports in the National Airports System to the airport authorities that operate them (see Appendix II).

(This recommendation can also be found in the committee's interim report)



APPENDIX I: THE GLOBAL AND DOMESTIC STATE OF THE AIR TRAVEL INDUSTRY

The global air transport industry carried 2.7 billion passengers and 50 million tonnes of cargo around the world in 2011.⁸⁷ According to the International Civil Aviation Organization (ICAO), with an average growth rate of approximately 4.6% per year over the last decade, global air passenger and cargo traffic growth is outpacing global economic growth.⁸⁸ Current forecasts predict that airlines based in North America will experience an estimated sustained growth rate of 3% over the next 20 years, as well as an increase in market share, from 49% to 57%, of international traffic. International travel remains the predominant use of air transportation, with 62% of all flights heading to foreign destinations.⁸⁹

A representative from the ICAO who appeared before the committee during its study attributed this growth to increased competition and fare reductions as well as improved consumer confidence in deregulated markets.⁹⁰ The effect of this increased competition has affected the operating margins of airlines, which are relatively low compared to those of other players within the transportation industry. Over the last 10 years, the average operating margin of airlines globally was between 1.2 to 2.5%.⁹¹ These tight margins have made it difficult for airlines to operate and compete, especially in markets with high operating costs such as Canada. Tight margins also make airlines vulnerable to economic downturns.

This challenging climate in the industry has resulted in a wave of consolidation and the development of new alliances in the last 10 years. As witnesses told the committee, given that the profitability of airlines is based on volume,⁹² it has become critical for them to consolidate their market shares and avoid having empty seats on their aircraft.⁹³

Examples of airline mergers and acquisitions that have occurred recently in North America and Europe include: Continental and United; Delta and Northwest; US Airways and American Airlines; Air France and KLM; and British Airways and Iberia. In addition, three major transatlantic alliances (Star Alliance, oneworld, and Sky Team) were formed, which now account for more than 60% of worldwide scheduled air passenger traffic. As a result of such consolidations, the global load factor of airlines⁹⁴ has increased from 70% in 2000 to 78% in 2011.⁹⁵

The growth of the air transport industry has resulted in an urgent need to train personnel. Globally, with over 60% of orders for new aircraft related to air traffic growth, some regions of the world are already experiencing difficulty in training and retaining sufficient numbers of licensed personnel to operate and maintain these new aircraft.⁹⁶ According to recent statistics, the demand for pilots worldwide is expected to reach 50,000 pilots per year by 2030, while global institutions have the capacity to train only 47,000 new pilots each year.⁹⁷ However, ICAO statistics suggest that North America will not be negatively affected by this deficit for the next 20 years.⁹⁸

In Canada, air transport accounts for approximately 12% of the gross domestic product generated by the transport sector.⁹⁹ Similar to the global air transport industry, Canada has also seen changes in its air transport industry over the past decade. New air carriers, such as Porter Airlines, have emerged and existing carriers have expanded their serves to new destinations.¹⁰⁰ Meanwhile other air carriers have closed their doors.¹⁰¹ At the end of 2011, 1,497 air carriers of all sizes were offering scheduled and non-scheduled domestic and international flights in Canada. Of these carriers, 694 were Canadian, 634 were American, and 169 were based in another country.¹⁰²

Did you know?	
Number of passengers that board planes out of Canadian airports in 2011	78.4 million
Amount of cargo that transited in Canadian airports in 2011	739 million tons
Value of cargo that is transported by Canadian airports in 2011	\$110 billion
Number of jobs that are linked to the operations of Canadian airports	200,000

Source: Transport Canada, *Transportation in Canada 2011: Comprehensive Review*, Public Works and Government Services, Canada, 2012 and Canadian Airports Council, "Reaching Beyond ... For the Economy," *Canada's Airports*, 2013.

Over the last few decades, the growth of Canada's air transport industry, which has increased annually by an average 5.3%, has fared favourably compared to the growth of its global counterparts.¹⁰³ According to the ICAO, Canada's higher growth rate can be attributed to the size of the country and the longer distances between destinations rather than better economic circumstances.¹⁰⁴



Globally, Canadian airline companies lost 0.3% of their international market share between 2000 and 2011.¹⁰⁵ This loss resulted from the continued dominance of European airlines and the growing influence of carriers from the Asia-Pacific region, according to a Transport Canada report.¹⁰⁶ At the same time, the Canadian marketplace has not been exempt from the global rise of low-cost carriers. Whereas low-cost carriers carried only 7% of passengers globally in 2000, today they account for 20% of the global market and 15% of the Canadian market.¹⁰⁷

Did you know?	
Number of aerodromes ¹⁰⁸ in Canada	1,889
Number of regional airports ¹⁰⁹ that offer scheduled and non-scheduled flights	570
Number of airports part of the National Airport System ¹¹⁰ (NAS)	26
Number of airports in northern communities that are generally only accessible by air	65

Source: Transport Canada, *Transportation in Canada 2011: Comprehensive Review*, Public Works and Government Services, Canada, 2012 and TRCM, *Evidence*, 41st Parliament, 1st Session, 17 November 2012 (Helena Borges, Assistant Deputy Minister, Programs Group, Transport Canada).

In addition to airports and air carriers, a number of other stakeholders are involved in Canada’s air transport industry, thus ensuring safe and smooth air operations. These stakeholders include:

- Transport Canada, which is responsible for drafting and enforcing air transport regulations, including airport safety and security standards and aircraft standards;¹¹¹
- NAV CANADA, a private not-for-profit corporation that owns and operates Canada’s civil air navigation system;¹¹²
- The Canadian Air Transport Security Authority (CATSA), a Crown corporation that is responsible for security screening at designated Canadian airports;¹¹³
- The Canadian Transportation Agency, an independent and quasi-judicial federal administrative tribunal that is responsible for licensing air carriers;¹¹⁴ and
- The Transportation Safety Board, an independent federal agency that is responsible for investigating accidents, identifying safety deficiencies and making recommendations to “advance transportation safety in the marine, pipeline, rail and air modes of transportation.”¹¹⁵

Did you know?	
Number of air carriers in Canada	1,497
Number of airline transport and commercial pilots in Canada	19,866
Number of flight engineers in Canada	374
Number of air traffic controllers in Canada	1,935

Source: Transport Canada, *Transportation in Canada 2011: Comprehensive Review*, Public Works and Government Services, Canada, 2012

In *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*, the committee recognized the importance of all the players in the air transportation sector, regardless of their size or the size of the communities they serve. Large and small airports and carriers are all vital for the development of Canada’s regions and communities. As one witness testified, “simply because an airport is small does not necessarily mean there are only small dollars coming in. A number of people who fly across the country [...] will fly into a small municipal airport and [...] generate a good economic footprint in that community.”¹¹⁶ The committee also heard that the economic impact of small airports extends well beyond their immediate communities. For example, northern and remote airports have and will continue to play an important role in the development and emergence of the natural resources sector, which is important to Canada’s overall economic development and international trade.¹¹⁷

Canada’s air transport industry also serves as a gateway for a significant portion of the country’s tourism industry, which generates over \$70 billion annually in economic activity.¹¹⁸ Approximately 10 jobs are created for every million dollars spent by tourists.¹¹⁹ Despite the fact that the United States continues to be the largest single source of tourism for Canada, the Canada Tourism Commission informed the committee that, combined, other international tourists generate more revenue. However, unlike in other competing tourism markets, such as Europe, tourism in Canada is highly reliant on air access.¹²⁰

Despite its importance, the Canadian air transportation industry faces many challenges. Canada’s tourism and travel competitiveness ranking fell from fifth in 2009 to ninth in 2011.¹²¹ Among these challenges is financial sustainability. Similar to other airlines around the world, Canadian airlines have very low operating margins.¹²² Because of this, the cyclical nature and volatility of fuel prices have a significant impact on the financial sustainability of the airline industry. In July 2007, the industry had to deal with record fuel costs when the price of oil peaked at \$147 per barrel.¹²³



A number of witnesses testified that fuel prices now account for a third or more of airlines' operating costs, on average.¹²⁴ As a result, many Canadian air carriers have experienced financial difficulties.¹²⁵ One representative from a leading Canadian airline explained to the committee that, "for every \$1 increase in the price of a barrel of oil, [the company's] fuel [costs] will increase by approximately \$6 million annually."¹²⁶ Managing fluctuations in the cost of fuel "remains an important challenge for air carriers."¹²⁷ According to a Transport Canada report, "high fuel costs will continue to challenge the air industry, as will intense competition, while margins will continue to be thin in many markets."¹²⁸

APPENDIX II

a. NAS Airports

Until the mid-1990s, the federal government operated the majority of Canada's principal airports. In 1994, Transport Canada owned, operated or subsidized 150 airports across Canada.¹²⁹ That same year, the federal government adopted the *National Airports Policy* and decentralized the operation of Canada's airports. Under the terms of the NAP, the government:

- retained ownership of the country's 26 busiest airports, which would form the National Airports System (NAS), but established lease agreements to assign the responsibility for their management and operation to not-for-profit airport authorities;¹³⁰
- transferred the ownership of regional and local airports and other small airports to regional interests;
- continued to support remote airports serving isolated communities; and
- continued to regulate air services in all airports.¹³¹



Yellowknife

The NAS still consists of 26 airports.¹³² With the exception of the three NAS airports located in the territories, ownership of which has been transferred to the governments of their respective territories, the federal government still owns all of these airports. The NAS airports are operated by Canadian Airport Authorities (CAAs) under long-term lease agreements.

CAAs are not-for-profit organizations. Each CAA is run by a board of directors. The number of board members varies, but each board includes federal, provincial and municipal government representatives as well as representatives from the community. The CAAs receive no federal funding, but they do pay rent to the federal government. Early in its study, the committee heard from the Minister of Transport at the time, who said that this rent "represents the taxpayers' fair return on their investment, as well as the ongoing business opportunity transferred to the airport authority."¹³³

The CAAs must secure the funding necessary to operate and develop the airport infrastructure assigned to them. Their revenue streams come from whatever cash flow they can derive from airport operations, such as airport user fees (aircraft landing and parking fees charged to air carriers, airport improvement fees charged to passengers, rents charged to concession operators, etc.). They can also borrow on the financial markets. CAAs therefore have a considerable amount of discretion available to them in how they manage the airports under their assigned responsibility.

In *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*, the committee pointed out that the costs imposed on CAAs affect their competitiveness and the competitiveness of air travel as a whole. The committee wishes to reiterate that the government must stop treating airports as a source of public revenue, and it suggests that greater attention be paid to the impact of CAA decisions, with the goal of ensuring the long-term competitiveness of Canada's air transportation industry.



b. Airport Rents and the Competitiveness of Canada's Air Transport Industry

During its study, the committee heard that prices of flights originating from Canada are significantly higher than in the United States. Numerous witnesses testified that the high cost of flying to and from Canada is the result of the long list of charges, fees, and taxes levied on passengers and airlines. According to a recent report prepared by the World Economic Forum, Canada is now ranked 125th of 139 countries in terms of ticket taxes and other airport charges.¹³⁴

As the committee explained in *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*, the Canadian airline industry is very concerned by this phenomenon. Representatives from Air Canada testified that the infrastructure costs, landing fees, airport improvement fees, air navigation charges and security charges at four American border airports (Buffalo, Niagara Falls, Plattsburgh and Bellingham) are 229% lower than equivalent costs at the Canadian airports with which they compete.¹³⁵ As a result, “by 2015, as many as 34 million Canadians could be travelling out of these four facilities alone, with an associated direct negative impact to the Canadian economy of \$2.3 billion.”¹³⁶ Canadian Airport Council estimates that a total of 4.8 million Canadians opted to take flights from U.S. airports rather than domestic airports in 2011.¹³⁷

Of the charges and fees that were discussed over the course of the committee’s study, airport ground rents were arguably the most contentious. Ground rents are amounts airport authorities pay to the federal government for the exclusive right to operate federally owned airports of the National Airports System (NAS). These rents are calculated progressively, based on airport authorities’ gross revenues. “Most large airports now pay an incremental rate of 8, 10, or 12 percent of total revenue to the government, with Toronto Pearson, Vancouver and Montreal in the 12 percent

bracket.”¹³⁸ Over the last 10 years, NAS airports have paid over \$2.5 billion in ground rents to the federal government.¹³⁹

Many witnesses raised concerns that these rents do not take into account the differing state and value of airport facilities when they were first transferred to the airport authorities.¹⁴⁰ As the committee explained in *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*, since the airport authorities are now responsible for building new infrastructure, a number of witnesses objected to the fact that ground rent is assessed on gross revenues, which includes “revenues that are derived 100% from airport users to pay for new infrastructure that the government played no role in creating.”¹⁴¹

Since the airport authorities are mandated to be not-for-profit entities, witnesses told the committee that these costs are recovered from users. When they were asked about the potential impact if the government were to reduce these costs, most witnesses concurred that savings would be passed on to consumers. Doing so would “bring meaningful competition to the market, and therefore drive the real cost of tickets down.”¹⁴² According to the Air Transport Association of Canada, “a 1% reduction in airfares generally results in a 1% increase in passenger traffic.”¹⁴³

While some witnesses supported reduced airport charges, they did not feel that this alone was enough to reduce the cost of air travel for Canadians. Professor Ambarish Chandra, of the University of Toronto’s Rotman School of Management, told the committee that there is simply insufficient competition among air carriers in Canada.¹⁴⁴ Two of these carriers, Air Canada and WestJet, make up more than 90% of the market. In Professor Chandra’s opinion, lowering airport charges will not be enough to bring down the cost of air travel in Canada unless there is also true competition among carriers.¹⁴⁵ He stated that a reduction in airport charges must be accompanied in the long run by increased competition among the carriers.

Table 1 – Economic Loss in Canada from U.S. Passenger Leakage (2010)

Category of Impacts	Outputs (\$ Millions)	GDP (\$ Millions)	Jobs	Employment Income (\$ Millions)	Tax Revenue (\$ Millions)
Direct	\$1,402	\$512	3,465	\$185	\$74
Indirect	\$688	\$422	3,565	\$223	\$76
Induced	\$299	\$180	1,861	\$104	\$40
Total	\$2,389	\$1,113	8,890	\$511	\$190

Table courtesy of the Canadian Airports Council



Let us say we eliminated ground rents today. Fares probably would fall somewhat but not by as much as a truly competitive industry would have them fall by.

Ambarish Chandra, Rotman School of Management, University of Toronto, as an individual

The committee stresses that there is an inherent economic danger in maintaining the status quo. In a world that is moving towards fewer global aviation hubs, Canada's high-cost environment may inhibit the ability of its larger airports, namely Toronto, Vancouver and Montreal, to achieve that status.¹⁴⁶ As one witness explained, Canada's aviation sector is saddled with "unjustifiable high service costs that actively discourage growth and artificially depress markets."¹⁴⁷ Another witness told the committee that the Government of Canada, rather than promoting the aviation sector as an economic growth engine, instead "imposes one of the highest government tax and fee regimes in the world [and] has treated the industry as a cash cow."¹⁴⁸ The International Air Transport Association informed the committee that "the aviation industry does not wait for markets to open; they go elsewhere" and Canada will likely see less connectivity in the future should the current high cost environment remain in place.¹⁴⁹ As an Air France official explained to the committee, "the decision to stop the Airbus A380 service [to Montreal] was based on profitability issues, on which airport-related costs have something to do with."¹⁵⁰

In *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*, the committee recommended that Transport Canada establish and implement a plan to phase-out ground rents for airports that are part of the National Airport System. The committee also recommended that the Government of Canada transfer full ownership of these airports to the airport authorities that operate them in order to reduce impediments to their development and profitability. The committee remains convinced that the government of Canada should seriously consider these recommendations.

RECOMMENDATIONS:

The committee recommends that Transport Canada establish and implement a plan to phase out ground rents completely over time for airports that are part of the National Airport System.

AND

The committee recommends that, concurrent with the long-term plan of ending airport ground rents, Transport Canada transfer federally owned airports in the National Airports System to the airport authorities that operate them.





ENDNOTES

- ¹ Standing Senate Committee on Transport and Communications (TRCM), *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*, interim report, 41st Parliament, 1st Session, 5 June 2012.
- ² TRCM, *Evidence*, 41st Parliament, 1st Session, 27 March 2012 (Marilynne Day-Linton, Chair of the Board, Greater Toronto Airports Authority, Canadian Airports Council).
- ³ TRCM, *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*, interim report, 41st Parliament, 1st Session, June 2012.
- ⁴ TRCM, *Evidence*, 40th Parliament, 3rd Session, 9 February 2011 (Denis Robillard, Director General, Québec Airport Council).
- ⁵ TRCM, *Evidence*, 41st Parliament, 1st Session, 16 October 2012 (John McKenna, President and Chief Executive Officer, Air Transport Association of Canada).
- ⁶ TRCM, *Evidence*, 41st Parliament, 1st Session, 16 October 2012 (John McKenna, President and Chief Executive Officer, Air Transport Association of Canada).
- ⁷ RCM, *Evidence*, 40th Parliament, 3rd Session, 9 February 2011 (Denis Robillard, Director General, Québec Airport Council).
- ⁸ Canadian Airports Council, "Reaching Beyond ... For the Economy," *Canada's Airports*, 2013.
- ⁹ TRCM, *Evidence*, 41st Parliament, 1st Session, 30 November 2011 (Joseph Sparling, President, Air North) and TRCM, *Evidence*, 41st Parliament, 1st Session, 6 November 2012 (Scott Clemens, President and Chief Executive Officer, Fort McMurray Airport Authority).
- ¹⁰ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 November 2012 (Luc Savard, Professor, University of Sherbrooke).
- ¹¹ TRCM, *Evidence*, 41st Parliament, 1st Session, 16 October 2012 (Michael Pyle, President and CEO, Exchange Income Corporation).
- ¹² TRCM, *Evidence*, 41st Parliament, 1st Session, 16 October 2012 (Michael Pyle, President and CEO, Exchange Income Corporation).
- ¹³ TRCM, *Evidence*, 41st Parliament, 1st Session, 19 October 2011 (Tracy Medve, President, Canadian North).
- ¹⁴ TRCM, *Evidence*, 41st Parliament, 1st Session, 16 October 2012 (Michael Pyle, President and CEO, Exchange Income Corporation).
- ¹⁵ TRCM, *Evidence*, 41st Parliament, 1st Session, 30 November 2011 (Joseph Sparling, President, Air North).
- ¹⁶ TRCM, *Evidence*, 41st Parliament, 1st Session, 17 October 2012 (Stephen Nourse, Executive Director, Northern Air Transport Association).
- ¹⁷ TRCM, *Evidence*, 41st Parliament, 1st Session, 25 September 2012 (Colin Stacey, Director, National Air Services Policy).
- ¹⁸ A Runway End Safety Area (RESA) is an area provided at each end of a runway for the safe landing of aircraft that would otherwise overshoot or undershoot the runway.
- ¹⁹ TRCM, *Evidence*, 41st Parliament, 1st Session, 16 October 2012 (John McKenna, President and Chief Executive Officer, Air Transport Association of Canada).
- ²⁰ TRCM, *Evidence*, 41st Parliament, 1st Session, 16 October 2012 (John McKenna, President and Chief Executive Officer, Air Transport Association of Canada).
- ²¹ Transport Canada, *Land Use in the Vicinity of Airports*, TP 1247E, 8th Edition, May 2006.
- ²² Transport Canada, *Wildlife Control Procedures Manual*, "Implications of Land-use Activities in the Vicinity of Airports," 2002.
- ²³ TRCM, *The Future of Canadian Air Travel: Toll Booth or Spark Plug? – Report on the Future Growth and Global Competitiveness of Canada's Airports*, June 2012, p. 3.
- ²⁴ TRCM, *Evidence*, 41st Parliament, 1st Session, 16 October 2012 (John McKenna, President and Chief Executive Officer, Air Transport Association of Canada).
- ²⁵ TRCM, *Evidence*, 41st Parliament, 1st Session, 17 October 2012 (Stephen Nourse, Executive Director, Northern Air Transport Association).
- ²⁶ TRCM, *Evidence*, 41st Parliament, 1st Session, 19 October 2011 (Tracy Medve, President Canadian North).
- ²⁷ TRCM, *Evidence*, 41st Parliament, 1st Session, 19 October 2011 (Tracy Medve, President Canadian North).
- ²⁸ TRCM, *Evidence*, 41st Parliament, 1st Session, 17 October 2012 (Stephen Nourse, Executive Director, Northern Air Transport Association).
- ²⁹ TRCM, *Evidence*, 41st Parliament, 1st Session, 17 October 2012 (Stephen Nourse, Executive Director, Northern Air Transport Association).
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- ³² TRCM, *Evidence*, 41st Parliament, 1st Session, 16 October 2012 (Michael Pyle, President and CEO, Exchange Income Corporation).
- ³³ TRCM, *Evidence*, 41st Parliament, 1st Session, 19 October 2011 (Tracy Medve, President, Canadian North).
- ³⁴ TRCM, *Evidence*, 40th Parliament, 3rd Session, 9 February 2011 (Denis Robillard, director general, Conseil des aéroports du Québec).
- ³⁵ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 November 2012 (Luc Savard, Professor, University of Sherbrooke, as an individual).
- ³⁶ TRCM, *Evidence*, 41st Parliament, 1st Session, 17 October 2012 (Stephen Nourse, Executive Director, Northern Air Transport Association).
- ³⁷ TRCM, *Evidence*, 41st Parliament, 1st Session, 19 October 2011 (Tracy Medve, President Canadian North).
- ³⁸ TRCM, *Evidence*, 41st Parliament, 1st Session, 17 October 2012 (Stephen Nourse, Executive Director, Northern Air Transport Association).
- ³⁹ TRCM, *Evidence*, 41st Parliament, 1st Session, 4 December 2012 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association, International).
- ⁴⁰ TRCM, *Evidence*, 41st Parliament, 1st Session, 25 September 2012 (Dave Dawson, Director, Airports and Air Navigation Policy, Transport Canada).
- ⁴¹ TRCM, *Evidence*, 41st Parliament, 1st Session, 17 October 2012 (Stephen Nourse, Executive Director, Northern Air Transport Association).
- ⁴² TRCM, *Evidence*, 41st Parliament, 1st Session, 4 December 2012 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association, International).
- ⁴³ Dan Adamus and Peter Black, *Letter from the Air Line Pilots Association, International*, 5 March, 2013.
- ⁴⁴ TRCM, *Evidence*, 41st Parliament, 1st Session, 4 December 2012 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association, International).
- ⁴⁵ TRCM, *Evidence*, 41st Parliament, 1st Session, 17 October 2012 (Stephen Nourse, Executive Director, Northern Air Transport Association).
- ⁴⁶ TRCM, *Evidence*, 41st Parliament, 1st Session, 4 December 2012 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association, International).
- ⁴⁷ TRCM, *Evidence*, 41st Parliament, 1st Session, 19 October 2011 (Tracy Medve, President Canadian North).
- ⁴⁸ TRCM, *Evidence*, 41st Parliament, 1st Session, 17 October 2012 (Stephen Nourse, Executive Director, Northern Air Transport Association).
- ⁴⁹ TRCM, *Evidence*, 41st Parliament, 1st Session, 17 October 2012 (Stephen Nourse, Executive Director, Northern Air Transport Association).
- ⁵⁰ TRCM, *Evidence*, 41st Parliament, 1st Session, 13 December 2011 (John Crichton, President and CEO, NAV CANADA).
- ⁵¹ Transport Canada, *Airports Capital Assistance Program*.
- ⁵² Transport Canada, *Airports Capital Assistance Program*.
- ⁵³ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 November 2012 (Scott Clemens, President and Chief Executive Officer, Fort McMurray Airport Authority).
- ⁵⁴ TRCM, *Evidence*, 41st Parliament, 1st Session, 25 September 2012 (Colin Stacey, Acting Director General, Air Policy, Transport Canada).
- ⁵⁵ See TRCM, *Evidence*, 41st Parliament, 1st Session, 4 December 2012 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association) and TRCM, *Evidence*, 41st Parliament, 1st Session, 6 November 2012 (Scott Clemens, President and Chief Executive Officer, Fort McMurray Airport Authority).
- ⁵⁶ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 November 2012 (Scott Clemens, President and Chief Executive Officer, Fort McMurray Airport Authority).
- ⁵⁷ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 November 2012 (Scott Clemens, President and Chief Executive Officer, Fort McMurray Airport Authority).
- ⁵⁸ TRCM, *Evidence*, 41st Parliament, 1st Session, 4 December 2012 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association, International).
- ⁵⁹ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 November 2012 (Scott Clemens, President and Chief Executive Officer, Fort McMurray Airport Authority).
- ⁶⁰ TRCM, *Evidence*, 41st Parliament, 1st Session, 25 September 2012 (Colin Stacey, Acting Director General, Air Policy, Transport Canada).
- ⁶¹ TRCM, *Evidence*, 41st Parliament, 1st Session, 4 December 2012 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association).
- ⁶² TRCM, *Evidence*, 41st Parliament, 1st Session, 14 March 2012 (Scott Clemens, President and Chief Executive Officer, Fort McMurray Airport Authority).
- ⁶³ Aboriginal Affairs and Northern Development Canada, *Mining & Minerals in the Northwest Territories and Nunavut*.
- ⁶⁴ Government of Canada, *Canada's Northern Strategy: "Improving and Devolving Northern Governance."*
- ⁶⁵ Government of the Northwest Territories, *Sharing Resource Revenues*, Fact Sheet.
- ⁶⁶ TRCM, *The Future of Canadian Air Travel: Toll Booth or Spark Plug?*, Interim report, 41st Parliament, 1st Session, June 2012.
- ⁶⁷ World Economic Forum, *Travel and Tourism Competitiveness Report 2011* and TRCM, 6 December 2011 (Lavin).
- ⁶⁸ TRCM, *Evidence*, 40th Parliament, 3rd Session, 2 November 2010 (Michele McKenzie, President and CEO, Canadian Tourism Commission).
- ⁶⁹ TRCM, *Evidence*, 40th Parliament, 3rd Session, 11 March 2011 (Professor Fred Lazar, Department of Economics, York University, as an individual).



- ⁷⁰ TRCM, *Evidence*, 41st Parliament, 1st Session, 4 October 2011 (Duncan Dee, Executive Vice-President and Chief Operating Officer, Air Canada).
- ⁷¹ TRCM (5 October 2011) (Dunleavy).
- ⁷² *Ibid.*
- ⁷³ TRCM, *Evidence*, 41st Parliament, 1st Session, 15 November 2011 (Lloyd McCoomb, President and Chief Executive Officer, Greater Toronto Airports Authority).
- ⁷⁴ TRCM, *Evidence*, 40th Parliament, 3rd Session, 17 November 2011 (William Restall, Chair, Canadian Airports Council).
- ⁷⁵ TRCM, *Letter from the Canadian Airports Council*, 41st Parliament, 1st Session, 20 February 2013 (Tom Ruth, Chair, Canadian Airports Council).
- ⁷⁶ TRCM, *Evidence*, 41st Parliament, 1st Session, 30 November 2011 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association).
- ⁷⁷ TRCM, *Evidence*, 40th Parliament, 3rd Session, 2 February 2011 (Jamie Molloy, Director, British Columbia Aviation Council).
- ⁷⁸ TRCM, *Evidence*, 40th Parliament, 3rd Session, 2 February 2011 (Jamie Molloy, Director, British Columbia Aviation Council).
- ⁷⁹ TRCM, *Evidence*, 41st Parliament, 1st Session, 30 November 2011 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association).
- ⁸⁰ TRCM, *Evidence*, 41st Parliament, 1st Session, 30 November 2011 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association).
- ⁸¹ TRCM, *Evidence*, 41st Parliament, 1st Session, 17 October 2012 (Stephen Nourse, Executive Director, Northern Air Transport Association).
- ⁸² TRCM (23 November 2010) (Prud'homme).
- ⁸³ TRCM, *Evidence*, 41st Parliament, 1st Session, 30 November 2011 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association).
- ⁸⁴ Human Resources and Skills Development Canada, *Temporary Foreign Worker Program*.
- ⁸⁵ TRCM, *Evidence*, 41st Parliament, 1st Session, 4 December 2012 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association).
- ⁸⁶ TRCM, *Evidence*, 41st Parliament, 1st Session, 4 December 2012 (Captain Dan Adamus, President, Canada Board, Air Line Pilots Association).
- ⁸⁷ Standing Senate Committee on Transport and Communications [TRCM], *Evidence*, 41st Parliament, 1st Session, 20 November 2012 (Narjess Teyssier, Economic Analysis and Policy Section, International Civil Aviation Organization).
- ⁸⁸ *Ibid.*
- ⁸⁹ *Ibid.*
- ⁹⁰ *Ibid.*
- ⁹¹ *Ibid.*
- ⁹² TRCM, *Evidence*, 41st Parliament, 1st Session, 5 October 2011 (Hugh Dunleavy, Executive Vice-President, Strategy and Planning, WestJet).
- ⁹³ TRCM (20 November 2012) (Teyssier).
- ⁹⁴ The load factor refers to the ratio between total occupied seats and the total available seats. See: Transport Canada, *Transportation in Canada 2011: Comprehensive Review*, Public Works and Government Services, Canada, 2012.
- ⁹⁵ TRCM (20 November 2012) (Teyssier).
- ⁹⁶ *Ibid.*
- ⁹⁷ TRCM, *Evidence*, 40th Parliament, 3rd Session, 23 November 2010 (Marco Prud'homme, Chief Executive Officer, Association québécoise du transport aérien).
- ⁹⁸ TRCM (20 November 2012) (Teyssier).
- ⁹⁹ Transport Canada, *Transportation in Canada 2011: Comprehensive Review*, Public Works and Government Services, Canada, 2012. The entire Canadian transportation services sector accounted for 4.2% of gross domestic product in 2011.
- ¹⁰⁰ *Ibid.*
- ¹⁰¹ *Ibid.*
- ¹⁰² *Ibid.*
- ¹⁰³ TRCM (20 November 2012) (Teyssier).
- ¹⁰⁴ *Ibid.*
- ¹⁰⁵ Transport Canada (2012).
- ¹⁰⁶ *Ibid.*
- ¹⁰⁷ TRCM (20 November 2012) (Teyssier).
- ¹⁰⁸ An "aerodrome" is the generic term designating an area where planes can land and takeoff. See *Canadian Aviation Regulations*, SOR/96-433, sections 30001 to 30555.
- ¹⁰⁹ An "airports" is, among other, an aerodromes used for the purpose of offering a scheduled service for the transport of passengers. See *Canadian Aviation Regulations*, SOR/96-433, sections 30001 to 30555.
- ¹¹⁰ The National Airports Systems (NAS) is comprised of all the airports located in all national, provincial and territorial capitals as well as those that had an annual traffic volume of 200,000 or more passengers at the time when the NAS was established in 1994
- ¹¹¹ Transport Canada (2012).
- ¹¹² *Ibid.*
- ¹¹³ *Ibid.*
- ¹¹⁴ *Ibid.*
- ¹¹⁵ Transportation Safety Board, *Mandate*.
- ¹¹⁶ TRCM, *Evidence*, 40th Parliament, 3rd Session, 2 February 2011 (Jamie Molloy, Director, British Columbia Aviation Council).
- ¹¹⁷ See TRCM, *Evidence*, 41st Parliament, 1st Session, 16 October 2012 (John McKenna, President and Chief Executive Officer, Air Transport Association of Canada) and TRCM, *Evidence*, 41st Parliament, 1st Session, 25 October 2012.
- ¹¹⁸ Canadian Airports Council, "Reaching Beyond ... For the Economy," *Canada's Airports*, 2013.
- ¹¹⁹ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 November 2012. (Luc Savard, Professor, University of Sherbrooke).
- ¹²⁰ TRCM, *Evidence*, 40th Parliament, 3rd Session, 2 November 2010. (Michele McKenzie, President and CEO, Canadian Tourism Commission) and (Greg Klassen, Senior Vice-President, Marketing Strategy and Communications, Canadian Tourism Commission).
- ¹²¹ TRCM, *Evidence*, 1st Session, 41st Parliament, March 13, 2012 (David Goldstein, President and Chief Executive Officer, Tourism Industry Association of Canada).
- ¹²² Transport Canada, *Transportation in Canada 2011: Comprehensive Review*, Public Works and Government Services, Canada, 2012.
- ¹²³ Transport Canada, *Transportation in Canada 2011: Comprehensive Review*, Public Works and Government Services, Canada, 2012.
- ¹²⁴ TRCM (20 November 2012) (Teyssier) and TRCM, *Evidence*, 41st Parliament, 1st Session, 1 November 2011 (Robert J. Deluce, President and Chief Executive Officer, Porter Airlines Inc) and TRCM (5 October 2011) (Dunleavy).
- ¹²⁵ Transport Canada, *Transportation in Canada 2011: Comprehensive Review*, Public Works and Government Services, Canada, 2012.
- ¹²⁶ TRCM (5 October 2011) (Dunleavy).
- ¹²⁷ Transport Canada, *Transportation in Canada 2011: Comprehensive Review*, Public Works and Government Services, Canada, 2012.
- ¹²⁸ Transport Canada, *Transportation in Canada 2011: Comprehensive Review*, Public Works and Government Services, Canada, 2012.
- ¹²⁹ Transport Canada, *National Airports Policy*.
- ¹³⁰ These airports included those with passenger traffic of more than 200,000 at that time and those serving a federal, provincial or territorial capital.
- ¹³¹ Transport Canada, *National Airports Policy*.
- ¹³² Transport Canada, *National Airports Policy*.
- ¹³³ TRCM, *Evidence*, 40th Parliament, 3rd Session, 20 October 2010. (Hon. Chuck Strahl, Minister of Transport, Infrastructure and Communities).
- ¹³⁴ World Economic Forum, *Travel and Tourism Competitiveness Report 2011*, Geneva, Switzerland, 2011.
- ¹³⁵ TRCM, *Evidence*, 41st Parliament, 1st Session, 4 October 2011 (Duncan Dee, Executive Vice-President and Chief Operating Officer, Air Canada).



¹³⁶ TRCM, *Evidence*, 41st Parliament, 1st Session, 4 October 2011 (Duncan Dee, Executive Vice-President and Chief Operating Officer, Air Canada).

¹³⁷ Korenic and Seabrook (2012).

¹³⁸ Cherniavsky, B. and Dachis, B., "Excess Baggage: Measuring Air Transportation's Fiscal Burden," *C.D. Howe Institute Commentary*, No. 242, February 2007.

¹³⁹ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 December 2011 (Douglas E. Lavin, Regional Vice President, North America, International Air Transport Association).

¹⁴⁰ See TRCM, *Evidence*, 41st Parliament, 1st Session, 15 February 2012 (Barry Rempel, President and CEO, Winnipeg Airport Authority) and (28 February 2012) (Garth Atkinson, President and Chief Operating Officer, Calgary Airport Authority).

¹⁴¹ TRCM, *Evidence*, 41st Parliament, 1st Session, 28 February 2012 (Garth Atkinson, President and Chief Executive Officer, Calgary Airport Authority).

¹⁴² TRCM, *Evidence*, 41st Parliament, 1st Session, 13 March 2012 (David Goldstein, President and Chief Executive Officer, Tourism Industry Association of Canada).

¹⁴³ TRCM, *Evidence*, 41st Parliament, 1st Session, 5 February 2012 (Michael Skrobica, Senior Vice President and Chief Financial Officer, Air Transport Association of Canada).

¹⁴⁴ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 March 2012 (Ambarish Chandra, Rotman School of Management, University of Toronto, as an individual).

¹⁴⁵ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 March 2012 (Ambarish Chandra, Rotman School of Management, University of Toronto, as an individual).

¹⁴⁶ TRCM, *Evidence*, 40th Parliament, 3rd Session, 1 March 2011 (Fred Lazar, Professor, Department of Economics, York University).

¹⁴⁷ TRCM, *Evidence*, 41st Parliament, 1st Session, 4 October 2011 (Duncan Dee, Executive Vice-President and Chief Operating Officer, Air Canada).

¹⁴⁸ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 December 2011 (Douglas Lavin, Regional Vice President, North America, International Air Transport Association).

¹⁴⁹ TRCM, *Evidence*, 41st Parliament, 1st Session, 6 December 2011 (Douglas Lavin, Regional Vice President, North America, International Air Transport Association).

¹⁵⁰ TRCM, *Evidence*, 41st Parliament, 1st Session, 21 November 2012 (Fabien Pelous, Vice-President and Chief Executive Officer, Air-France-KLM in Canada).