

***TIME FOR A
NEW NATIONAL
VISION***

**Opportunities and Constraints
for Canada in the
Global Movement of Goods**

Report of the Standing Senate
Committee on Transport and
Communications

June 2008

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TABLE OF CONTENTS

The Committee	5
Order of reference.....	7
Executive Summary	8
Recommendations.....	10
Chair’s Forward	15
Introduction	17
Key Areas of Concern for Witnesses:.....	21
A. Railway Services	21
1. Rail operations.....	21
2. Impacts on downstream industry.....	23
B. Trucking Services.....	27
1. The Canadian trucking industry.....	27
2. Regional trucking issues	29
C. Customs Policy.....	32
1. The shortage of empty containers.....	32
2. The additional problem of the customs tariff	33
3. The plight of Canadian agricultural producers.....	36
D. Port Authority Policy	39
E. Shortsea Shipping	42
1. The potential for shortsea container shipping in Canada.....	42
2. The impediments to shortsea container shipping in Canada.....	44
F. Inland Opportunities.....	47
1. The case for inland container terminals	47
2. Opportunities on the Prairies.....	48
3. Opportunities in British Columbia.....	50

G.	Security and Efficiency	52
1.	The security environment.....	52
2.	Efficiency issues	54
3.	Potential opportunities.....	56
H.	Information Technology Needs.....	58
I.	Environmental Considerations.....	61
1.	The relative environmental impacts of different modes of transportation.....	61
2.	Environmental red tape	64
J.	Labour Issues	66
K.	Federal Intermodal Policies and Programs.....	69
1.	Federal infrastructure programs	69
2.	Transportation policy	71
3.	Relations between industry, government and other stakeholders.....	74
4.	The local impacts of federal policy	76
5.	Horizontal policy issues	78
	Conclusion.....	80
Appendix A	Background on containerization.....	81
Appendix B	Basic information on container transportation	83
Appendix C	Canada’s West Coast container ports	88
Appendix D	Central Canadian container ports.....	91
Appendix E	Canada’s East Coast container ports	93
Appendix F	Potential container ports in the North	95
Appendix G	Witnesses and submissions.....	96

THE COMMITTEE

The following Senators have participated in the study:

The Honourable Lise Bacon, Chair of the Committee
The Honourable Donald H. Oliver, Deputy Chair of the Committee

and

The Honourable Senators:

Willie Adams
Dennis Dawson
Trevor Eyton
Francis Fox
Janis G. Johnson
Terry M. Mercer
Pana Merchant
Jim Munson (39th Parliament, 1st session)
Gerard A. Phalen (39th Parliament, 1st and 2nd sessions)
David Tkachuk (Deputy Chair, 39th Parliament, 1st session)
Rod A.A. Zimmer

Ex-officio members of the Committee:

The Honourable Senators Marjory LeBreton, P.C. (or Gérald Comeau)
and Céline Hervieux-Payette, P.C. (or Claudette Tardif)

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

The Honourable Senators Jacob (Jack) Austin, Tommy Banks, Sharon Carstairs, Andrée Champagne, Maria Chaput, Ione Jean Christensen, Gerald J. Comeau, James Cowan, Joyce Fairbairn, Rose-Marie Losier-Cool, Paul J. Massicotte, Michael A. Meighen, Wilfred P. Moore, Mira Spivak and Marilyn Trenholme-Counsell.

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Mrs. Karen Schwinghamer, Communications Officer; (39th Parliament, 2nd session);
Mrs. Mona Ishack, Communications Coordinator;
Mr. Adam Thompson, Clerk of the Committee (39th Parliament, 1st session);
Mrs. Nicole Raymond, Administrative Assistant (39th Parliament, 1st session);
Mrs. Sylvie Simard, Administrative Assistant (39th Parliament, 2nd session);
Mr. Denis Robert, Clerk of the Committee (39th Parliament, 2nd session).

Senators' Staff:

Mr. Marc Lalancette, Policy Advisor to the Chair (39th Parliament, 2nd session);
Mr. Alexandre Drago, Policy Advisor to the Chair (39th Parliament, 1st session);
Mrs. Rhonda Walker-Sistie, Policy Advisor to the Deputy Chair (39th Parliament, 1st session);
Mr. Robin Hay, Policy Advisor to the Deputy Chair (39th Parliament, 1st and 2nd sessions).

ORDER OF REFERENCE

Extract from the *Journals of the Senate* of Wednesday, November 14, 2007:

“The Honourable Senator Bacon moved, seconded by the Honourable Senator Robichaud, P.C.:

That the Standing Senate Committee on Transport and Communications be authorized to examine and report on current and potential future containerized freight traffic handled at, and major inbound and outbound markets served by, Canada’s

(i) Pacific Gateway container ports;

(ii) east coast container ports;

(iii) central container ports;

and current and appropriate future policies relating thereto; and

That the Committee submit its final report no later than March 31, 2008, and

That the papers and evidence received and taken and the work accomplished by the Committee on the subject since the First Session of the Thirty-Ninth Parliament be referred to the Committee.

After debate,

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

Extract from the *Journals of the Senate* of Tuesday, March 11, 2008:

“The Honourable Senator Bacon moved, seconded by the Honourable Senator Robichaud, P.C.:

That, notwithstanding the order of the Senate adopted on November 14, 2007, the date for the presentation of the final report by the Standing Senate Committee on Transport and Communications on its consideration of containerized freight traffic handled by Canada's ports be extended from March 31, 2008, to June 19, 2008.

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

Paul Bélisle
Clerk of the Senate

EXECUTIVE SUMMARY

The Standing Senate Committee on Transport and Communications has focused its efforts during the past year and a half on an in-depth examination of the Canadian container transportation system. The Committee began its hearings in June 2006 and completed its study in April 2008. Our goal was to find ways to allow Canada's containerized freight transportation system to become more competitive so that Canada can attract a greater share of the North American container traffic.

With Asia's largest market on one end, and North America's largest market on the other, China to Chicago is a very important trade route for containerized traffic. With Canada's ports strategically positioned to handle this traffic flow, the committee decided to examine the present constraints in the system as well as how these could be addressed in order to take advantage of future market possibilities.

The container system in Canada is made up of a number of components – ships, railroads, trucks, container/marine terminals, information technology and labour. The policy environment in which these various components operate is a patchwork of federal, provincial and municipal jurisdictions. What the Committee found was that each level of government has a significant impact on each of these components and that each has a vital role to play in ensuring that the system works at an optimal level. In addition, the private sector is a key driver in how the system is financed.

We found that there were a number of areas that require attention in order for the system to operate as a seamless network from coast to coast. These include: improving railroad services; rationalizing a patchwork of trucking regulations across the country; dealing with labour shortages in the industry; updating port policies; improving infrastructure; dealing with environmental issues; and integrating more information technology into the container transportation system. While Canada is in a unique position to take advantage of the expanding container traffic, the Committee recognizes that these challenges will have to be addressed in order for this to take place.

The committee believes that dealing with these issues poses public policy challenges for all levels of government in Canada as well as the private sector. The federal and provincial governments, regional interest groups, supply chain players and other stakeholders recognize that substantial economic benefits can be derived from an efficient container transportation system and have but put considerable resources into increasing efficiency and capacity into the system in recent years. However, we believe that, among other things, more coordination among the participants is required for the system to reach its full potential.

We strongly believe that container transportation must be viewed as a system and that each part must function efficiently if the supply chain is to flourish. Today, there are fragile links

in the system, such as port congestion, system reliability, labour shortages, uncoordinated government policy, and under utilization of information technology.

Our report looks at these and other issues in terms of national policy and Canada's place in the international movement of containers. We believe that there is a significant policy role for the federal government to play in further developing this sector. It can provide the leadership role necessary to coordinate efforts among all the players in the container transportation industry.

We offer a number of recommendations in our report for the federal government and system stakeholders for improving container transportation in Canada. These include:

- **the establishment of a National Gateway Council to bring together the players in the container transportation system and governments from across the country to enhance communications, bring efficiencies to the system and market Canada's transportation system to the world;**
- **enhancing the level of service provided by the railroads to shippers;**
- **provisions for improving trucking transportation including the use of new technologies as well as harmonizing trucking regulations across the country;**
- **increasing the supply of containers to Canadian shippers;**
- **broadening the scope to Canada's port authority policy;**
- **incentives to support the growth of shortsea shipping;**
- **provision for improving the environment;**
- **actions to improve labour relations, and enhance labour training programs;**
and
- **increased funding for port, gateway and inland terminal projects to provide increased capacity to handle future growth in the container transportation industry;**

We believe that this will lead to a more competitive container freight transportation system and allow Canada to play a more important role in the international container supply chain.

Throughout our study we have been struck by the fact that all of the system participants are eager to find ways to improve the system. We have also noted that many of these players seem to work in isolation and as a result, there is a lack of coordination among the stakeholders in the system. We believe that better communication will lead to better planning and coordination throughout the industry and resolve some of the issues we have highlighted in this report. Our recommendations are intended to achieve this goal.

RECOMMENDATIONS

A. Railway Services

1. The government examine an adjustment to the capital cost allowance to encourage railroads to accelerate investment in new equipment. (page 26)
2. The government examine the reasons for and take appropriate actions to address:
 - the lack of availability of rail container equipment;
 - the lower level of service and higher freight rates to “captive” shippers;
 - the lack of consultation between the railroads, shippers and ports regarding service delays; and
 - the lack of accountability on the part of the railways in dealing with shippers and ports regarding these issues. (page 26)

B. Trucking Services

3. The Federal Government support the adoption of new technologies by the trucking industry through tax incentives and accelerated depreciation. (page 31)
4. The Federal Government enable Citizenship and Immigration Canada to classify long-distance truck drivers as skilled labour to allow more foreign workers to take advantage of immigration policy in Canada. (page 31)
5. The Federal Government work with the Canadian Council of Motor Transport Administrators (CCMTA) to harmonize trucking regulations across the country. (page 31)

C. Customs Policy

6. Transport Canada negotiate harmonizing its container regulations with those of the United States, in order to increase the supply of empty containers to Canadian shippers. (page 38)
7. The government remove the Customs Tariff on the point-to-point movement of containers in Canada in order to increase the number of containers available to domestic shippers. (page 38)

D. Port Authority Policy

8. The government implement the recommendations contained in the 2003 report of the Canada Marine Act review panel which called for the ports to be able to issue tax-free bonds and pay the stipend based on their net, not gross, revenues. (page 41)

E. Shortsea Shipping

9. The government support the growth of shortsea shipping by:
 - eliminating the federal tariff on imported vessels used for shortsea shipping;
 - exempting shortsea container operations from the Marine Navigation Services fees;
 - exempting new container ports on the Great Lakes from the costs of establishing new customs services;
 - exempting shortsea container vessels flagged in Canada from pilotage fees on the St. Lawrence Seaway;
 - negotiating with the U.S. to exempt shortsea container vessels from the harbour maintenance tax; and
 - negotiating multilateral cabotage exemptions for shortsea container shipping operations. (page 46)

F. Inland Opportunities

10. The government establish inland free trade zones to attract investment and to enhance the efficient and cost effective operation of inland terminals. (page 51)

G. Security and Efficiency

11. The government harmonize the security programs among departments and agencies and use the appropriate technologies (e.g., such as optical character recognition devices) to facilitate the seamless movement of containers in the domestic and North American markets. (page 57)

H. Information Technology Needs

12. The government adopt an information sharing protocol similar to the U.S. Uniform Intermodal Interchange Agreement to facilitate the movement of containers in the domestic and North American markets. (page 60)

I. Environmental Considerations

13. The government encourage the harmonization of provincial trucking regulations in order to maximize the use of energy efficient technologies such as Enviro Truck engineering. (page 65)
14. The government make changes to the capital cost allowance for equipment to allow transportation companies to purchase the newest trucking technologies that are more fuel efficient and cleaner. (page 65)
15. The government expand funding for grade separations at level crossings to reduce congestion and train and truck vehicle idling. (page 65)
16. The government coordinate its environmental review processes with those of provincial governments and ensure that the reviews are completed within a reasonable time frame so that transportation infrastructure can be built in a timely manner. (page 65)

J. Labour Issues

17. The government commit more resources to a sustained marketing effort to attract more workers to the transportation sector. (page 67)
18. The government give access to apprentices in the transportation trades to federal Employment Insurance while they are in school. (page 67)
19. The government fund training programs, including the provision of appropriate technologies, to ensure that adequate personnel are properly qualified to meet the future labour demands of the container transportation industry. (page 67)
20. The government take the lead in establishing a new port labour regime in Canada and, in doing so, examine the structure of dock-related labour in Australia to find ways to transfer the lessons learned to Canada. (page 68)
21. Port marketing trade missions include labour representatives to assure clients and potential clients that labour is an integral part of the port organization, and all parts are working together to achieve labour harmony and the efficient running of the ports. (page 68)

K. Federal Intermodal Policies and Programs

22. The government through its Building Canada Plan fund port terminal projects to provide capacity required to handle future growth in the container transportation industry. (page 71)
23. The government re-emphasize transportation as a strategic domain for Canada by establishing a research program focused on national transportation policies and issues. (page 73)
24. The government assist the stakeholders in the container transportation system to establish an independent National Gateway Council to bring together national and international players in the container transportation system and governments from across the country to enhance communications, bring efficiencies to the system and market Canada's container transportation system to the world. (page 76)

25. The Minister of Transport oversees the progress on implementing the recommendations in this report and notify Parliament, within one year of the tabling of this report, on the state of that progress. (page 76)

CHAIR'S FORWARD

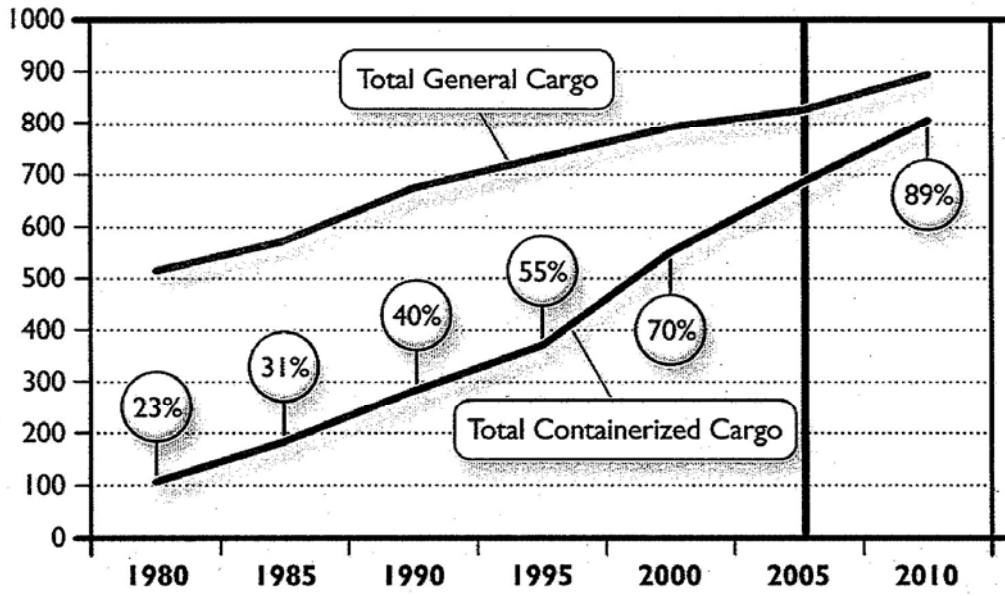
The Standing Senate Committee on Transport and Communications has spent two years studying Canada's containerized trade, both the current operations and the future opportunities. I would like to express my personal thanks to the members of the committee who were available for many extended meetings in order to hear the evidence of all of the witnesses who appeared before us over the course of our study. The members also made time in often hectic schedules to visit ports across Canada. I was greatly assisted by the Deputy Chair, Senator Donald H. Oliver, and by his predecessor in that position, Senator David Tkachuk.

Additionally, I would like to thank all of the witnesses who appeared before us, representing the various stakeholder groups. The quality of the evidence presented to us, both orally and in written submissions, and the ability of the witnesses before the committee to respond, on short notice, to often complex questions demonstrated their expertise and dedication to improving Canada's transportation network. They were of great assistance to the committee in completing this study.

Mention should be given to the Parliamentary Information and Research Service of the Library of Parliament for its assistance and, in particular, the researchers for our committee, Ms. Allison Padova, Mr. Terrence Thomas and Mr. John Christopher. I would also like to thank the Clerk of the Committee, Denis Robert, and his predecessor Adam Thompson, Senate support staff and translators who assisted the committee in completing this study.

I know I speak on behalf of our entire committee in saying: it is our sincere hope that the government will lose no time in acting to implement the recommendations in this report. The witnesses we heard were unanimous in pointing to the opportunities for Canada in the global market for containerized trade. Several witnesses, however, noted that tapping this opportunity requires immediate action. We look forward to having the opportunity to review government policy in this area.

Growth of World Containerization



Source: Prince Rupert Port Authority

INTRODUCTION

“The nation that finds the best policies to respond to transportation as a system may well be the one that does best in the competitive international marketplace”.

*Kristine Burr, Assistant Deputy Minister
Policy, Transport Canada*

Canada has an opportunity to become a transportation hub for containerized freight volumes moving between Canada, the United States and their major trading partners.

North America’s share of world container traffic currently amounts to about 48 million TEUs, roughly 15 percent of the world traffic volume, and is expected to reach 72 million TEUs by 2015¹. More than 60% of the North American containerized trade is with Asia and roughly 20% is with Europe. Container traffic between North America and Asia is forecasted to more than double by 2015. Canada alone expects to trade 13 million metric tonnes of containerized freight with Asia and 11 million with Western Europe by 2015. The value of the containerized trade between North America and Asia is \$35 billion now and should be \$75 billion by 2020, at which point it is expected to contribute \$10.5 billion to the Canadian economy each year.

If Canada can maintain or increase its share of North American container trade, there is a huge payoff in terms of economic growth, jobs and improved standard of living for all Canadians. Investment in ports and related transportation infrastructure is wise, but this is not investment that can be delayed.

The opportunity has arisen not only because global trade consistently outpaces global economic growth, but because it is experiencing nothing short of a revolution. Businesses increasingly take advantage of global supply and value chains and position their design, production, distribution, sales and customer support activities accordingly throughout the world. As a result, demand for transportation services, which traditionally has been considered a “derived” demand, is now considered by some to be completely integrated with the demand for the good produced by the global supply chain. Furthermore, between 1995 and 2001, Asia replaced Europe as the world’s premier trading region and today many global supply chains are centred in Asia.

¹ The conventional unit of measurement for container trade is the “twenty-foot equivalent unit” or TEU. The TEU is still used, even though most containers are now forty feet long.

With Asia's largest market on one end, and North America's largest market on the other, China to Chicago is a very important trade route for containerized freight. Even so, it is very difficult to predict which routes will be favoured and which transportation service providers will win and which will lose the Asia-North America traffic. Factors contributing to route uncertainty include the dynamic world market for port infrastructure investment, the expansion of the Panama Canal and the new vessel capacity that will come online in the next seven to eight years.²

What remains a constant is that Canada is strategically located from a marine standpoint as the closest route trader in the North Pacific, the closest route trader in the North Atlantic and the only North American country with a transcontinental scheduled railroad. In addition to its natural geographic advantages, the prediction that demand will exceed capacity in many U.S. ports by 2020 would seem to make Canada the best alternative for U.S. container traffic.³ But we also note that Mexico is aggressively pursuing this container business. Due to the fundamental changes in the manufacturing industry, which have made transportation and logistics integral to the process, moving containerized product from overseas into the U.S. market would generate substantial benefits for Canadians.

The federal and provincial governments, regional interest groups, supply chain players and other stakeholders recognize the benefits and have put substantial resources into exploring the question of efficiency and capacity in the Canadian containerized freight transportation system in recent years. The Senate Standing Committee on Transport and Communications solicited views on the role of the federal government in improving the efficiency and capacity of Canada's ports and surface transportation serving container traffic and in growing Canada's share of the North American market for this traffic. The views of those that accepted the Committee's invitation to participate are reflected in this report.

Some might question the need for a study of the containerized freight transportation system when bulk and break-bulk cargoes represent the majority of the tonnage currently moving through the Canadian port system. The reason for the focus on this sector is that it is expected to be the dominant method of international trade in the future, potentially capturing traffic that currently moves in the bulk system. The world container inventory continues to grow at about six percent per annum – twice the rate of world gross domestic product – and experts concede that forecasts of container traffic growth are probably underestimated.

Right now, Canada has an opportunity to capture a greater share in North America's containerized trade. In order to do so, substantial investment will be needed to remedy the fact that the current intermodal transportation network is poorly integrated as a whole. Surface congestion is already estimated to cost hundreds of millions of dollars a year to the economy, and the expected increases in containerized traffic volumes will create further

² See Appendix B for a more detailed discussion of maritime route trends.

³ See Appendix B for an overview of the North American Container Port Situation.

challenges for the Canadian transportation system and the movement of goods on our highways and railways, and at border crossings.

All Canadians would benefit from a more efficient and higher capacity container, or “intermodal”, transportation system. A more competitive transportation system would attract a greater share of the North American container traffic flows, bringing down the cost of using the system for all users. Lower-priced transportation, in turn, would mean more affordable imports and domestic products for Canadian consumers and more competitively priced exports for Canadian producers. Container traffic also presents an opportunity to change fundamentally how Canada manufactures products because transportation is an enabler. Canada can leverage its brain power and improved transportation logistics to transform its resources into much more valuable final product. Conversely, if Canada’s container transportation system is uncoordinated and unreliable, it will not attract North American container imports or serve Canada’s exporters and other Canadians well. International buyers of Canadian exports whose needs are best served by container transport will have no choice but to buy from global competitors. In many ways, Canada’s wealth, standard of living and jobs depend on Canada being a competitive player on this new global playing field.

While Canada is in a unique position to take advantage of the expanding container traffic, the Committee recognizes that there are challenges, such as the lack of intermodal coordination that must be addressed in order for this to take place. We strongly believe that container transportation must be viewed as a system and that each part must function efficiently if the supply chain is to flourish. Today, there are fragile links in the system. These include port congestion, system reliability, labour, government policy, aboriginal issues and cabotage.

Our report looks at these and other issues in terms of national policy and Canada’s place in the international movement of containers. At the same time, we also recognize that there must be allowances for regional variations and application of policy to meet the specific needs of these areas. In addition, we also note that many issues are at the local and provincial level. This does not mean the federal government has no role to play in their resolution. It can provide the necessary leadership and act as a catalyst so that the issues can be addressed in a coordinated and efficient manner.

Given the importance of a competitive containerized freight transportation system to Canada’s prosperity, it was of great concern to the Committee to hear witnesses say that there are major problems in the system, that it has a reputation for being unreliable overseas and that there is only a short window of opportunity to turn the situation around.⁴ The Committee began to conduct hearings on the containerized freight traffic handled by Canada’s major ports in June 2006 and completed its study in April 2008. Its goal was to find ways to allow Canada’s containerized freight transportation system to become more

⁴ See the section entitled North American Container Port Situation in Appendix B.

competitive so that Canada could attract a greater share of North American container traffic. The Committee subscribes to the view expressed by one witness that the nation that finds the best policies to respond to transportation as a system may well be the one that does best in the competitive international marketplace.

The Committee offers a number of recommendations for the federal government, which the Committee believes will lead to a more competitive containerized freight transportation system for the benefit of all Canadians. The following sections of the report describe what the Committee heard from witnesses, concluding with the federal policy changes the Committee believes are necessary. What the Committee learned about container transportation generally and the characteristics of Canada's major west Coast, central and east coast container ports are provided in the Appendices.

Finally, we would like to stress that we believe the participants in Canadian container transportation system are attempting to make changes to improve the system. We applaud these initiatives. But we stress, that more needs to be done and as quickly as possible, for Canada to meet its growing domestic demands and to be an important link in the international container supply chain. As one witness told the Committee, "the window of opportunity for Canada to change the dynamics of the flow of goods and to have a competitive position with respect to North American access will close in the next five to six years". The following sections of the report outline key areas of concern and our recommendations for their resolution.

KEY AREAS OF CONCERN FOR WITNESSES

Having heard from a large number of witnesses in Ottawa, Vancouver, Prince Rupert, Montreal and Halifax, the Committee has determined that the principal areas of concern for container transportation system stakeholders generally have to do with the reliability of surface transportation services, the climate for investment in system capacity and the impact of federal regulations on overall operations. Specific issues are explored in the following sections, which – in many cases – reveal overlap between the stakeholders’ concerns and interdependent recommendations. For example, witnesses’ views and federal policy suggestions in the area of customs policy also have a bearing on the discussion of environmental issues and rail services.

A. RAILWAY SERVICES

The Committee heard that there is substantial tension between the federally regulated Canadian Class 1 freight railways (i.e., CP Rail and CN Rail) and downstream industries in some parts of the country but not in others. Container shippers and container terminal operators from Western Canada were generally displeased with the level of service they received from both Class 1 railways and particularly from CN Rail and felt that they were at “the mercy of the railroads”. On the other hand, stakeholders in Central Canada were generally satisfied with the rail services they received, although they noted a distinct difference in the attitudes of the two railways towards their customers. The following sections present what the Committee learned about freight rail operations and their impact on the industries that depend on them.

1. Rail operations

“The key to CN's success is about balancing our crews, locomotives and cars. If they get out of sync, it kills us. It is no different than an airline. They must come in and go out loaded. We have to turn the asset and make it sweat.”

*Paul D. Waite
Vice-President, IMX, CN*

The Committee was told that the Canadian Class 1 freight rail network is a competitive continental network reaching south to the Gulf of Mexico, east to the Atlantic Ocean and west to the Pacific Ocean. In fact, by virtue of their connectors into the United States and their streamlined operations, Canadian Class 1 freight railways can get to the

major U.S. freight hub in Chicago from Canadian West Coast ports between 2 and 49 hours faster than American railways from American West Coast ports. CN Rail can get from Prince Rupert to Chicago in 100 hours and to Memphis in 117 hours. The Committee also heard that CP Rail's 33-hour service between the Port of Montreal and Chicago made this route very competitive for Chicago-bound container traffic.

Canada's Class 1 freight railways have been more financially successful in recent years, reportedly due to the evolution of their business model. Their current business model embraces "full asset utilization," which means that the railways deploy the minimum volume of assets they believe is required to operate efficiently; railway equipment is never idle and is always earning revenue. This model calls for direct routes, because switching reduces system velocity and limits the earnings from their assets, and balanced (i.e., comparable volumes in both directions) traffic. One of the Class 1 railway companies told the Committee that their operation was comparable to that of an airline in that both needed to balance traffic, crews, locomotives and cars, and to maximize the operating hours of their assets in order to achieve overall efficiency and make money.

The Committee learned that intermodal shipments are the fastest growing freight segment for CP Rail and CN Rail. Intermodal represents 29% of CP Rail's \$1.3 billion revenue and is growing at close to a double-digit rate annually. Most of CP Rail's intermodal traffic is coming through Vancouver and the company expects to see increased growth in container volumes through Vancouver for Chicago. Intermodal is a \$1.5 billion piece of CN Rail's \$7 billion business – roughly 20% of revenues, and is growing at between 11% and 13% per annum.

Railway companies may increase rail capacity to accommodate growth in demand in a number of ways, including more coordination with partners, better deployment and management of crews and rolling stock, and the addition of rolling stock and crew. The railways tend to opt for the lowest-cost options first, however, and reserve major capital investments until all other capacity-enhancing initiatives are maximized and once there is some assurance that demand will be sustained. For example, the Class 1 railways signed an agreement to share track around Vancouver in 2001, which increased rail efficiency in the area by 32% on average. More recently, CP Rail invested \$180 million in its network between Moose Jaw and Vancouver, achieving an operational capacity increase in the west of about 16%. Representatives from CP Rail estimated that CN and CP Rail would need to invest \$2 billion jointly over the next twenty years to accommodate container growth in Vancouver.

2. Impacts on Downstream Industry

“We order the labour and if the cars do not show up, then we eat that bill”

*Ross Hanson
Executive Vice-President
Fraser Surrey Docks*

The prevailing view of container shippers and container terminal operators in Western Canada is that the full-asset utilization model followed by Class 1 freight railway companies does not serve them well. The Committee was told that the operating model leaves the railways with very limited capacity to deal with operational emergencies. Furthermore, the Committee heard that operational emergencies seem to occur at a somewhat predictable frequency because Canada’s weather quite routinely disrupts railway services. For example, the very cold weather typical of the Prairies forces the railways to run much shorter trains because the track becomes more vulnerable to damage at low temperatures. Also, rock and mud slides regularly threaten to damage or block track in the mountainous regions of British Columbia. Having extra locomotives and rail cars available can mitigate the impact of these events on shippers, but the railway business model makes extra equipment scarce. All witnesses that commented on this issue acknowledged that winter 2006-2007 was the worst winter in recent years for Class 1 freight service failures, but differed on whether the railway companies had prepared adequately to minimize the service disruptions. Representatives of container shippers and container terminal operators accused the railways of failing to prepare adequately. The railway companies, however, claimed that it would have been impossible to prepare for the multiple weather-related disruptions to operations both on- and off-shore last winter.

Another aspect of the full asset utilization model, the railways’ preference for balanced traffic, leads to shortages of container equipment for export and domestic shippers in Western Canada. Western container terminal operators told the Committee that the railroad was the most important piece of infrastructure in a marine terminal operation, yet trains do not arrive on time or with sufficient cars. If there is a backlog of import containers on the terminal, a supply of empty cars is needed to clear them, but the extra empty cars represent a cost for the railroads that they seem unwilling to cover. Western container terminal operators said that they depend on the railways to deliver export and remove import containers from their facilities but are without recourse when railway service is poor because there is no commercial relationship between them. One Vancouver facility was backlogged with containers for two to three weeks in February 2007 when the promised railcars did not arrive, but had no way to hold the railway accountable.

Although the Committee was told that the Canadian railway industry was rated the most competitive rail system in the world in 2005, the Committee also heard from representatives of western container shippers that they felt they were at the mercy of the railways. One witness believed that the railways abused their monopoly power over export shippers in some regions by increasing rates until it became competitive for the exporter to move the shipment by truck. Other western shippers reported that they had been forced to ship their product to Vancouver by truck because they did not receive the railcars they needed.

Witnesses before the Committee provided two examples of industries in the west hit particularly hard when railway service fails to meet demand: export loaders in Vancouver and the pulse shippers on the Prairies. Lack of capacity in the rail industry has forced the export loaders to cover the costs of overhead, equipment and labour even though the railway does not provide cars for them to operate. The export loaders must accept the rail cars they are given because they have no recourse when there are not enough. The Committee also heard that strikes in the rail industry have such a negative impact on Canada's pulse producers that they consider trucking their product to port, which is not a sustainable alternative. According to industry representatives, the rail strike in spring 2007 brought the Canadian pulse industry to its knees, causing millions of dollars in losses daily, the closure of businesses and employee lay-offs.

Witnesses representing various downstream industries made some recommendations for increasing the rail capacity available for domestic and export container movements. One non-legislative remedy suggested to motivate the railways to provide more capacity to the container supply chain was for shippers and the ports to cooperate and demonstrate to the railroads that there was sufficient traffic to support additional services. Another witness suggested that the only way to make the railways invest in rail cars in order to be able to reposition empty containers was to pay them more. (TSI) Although a number of witnesses advocated greater accountability on the part of railways towards their customers and other players in the supply chain, there was no consensus on how this could be achieved. Some witnesses thought that incentives should drive accountability whereas another felt that the Canada Transportation Act should be amended to require the railways to develop a service agreement with third-party terminals. It was recommended that the federal government conduct a level of service review on the Class 1 railways, which could benefit both the railways' customers as well as third party terminals.

To address the apparent lack of competition between railway companies in some regions, some witnesses raised the issue of forcing railways to allow other railways access to their infrastructure. They acknowledged, however, that such a legislative remedy may not be realistic.

Representatives from the railway industry assured the Committee that they planned to invest adequately in the intermodal system to accommodate future growth in

containerized traffic. One company suggested to the Committee, however, that a stable regulatory environment would help make the railways comfortable spending the amount of money necessary to do so. Witnesses also suggested that amendments to the capital cost allowance rules for railways would help address a regulatory imbalance with the United States and allow the railways to purchase new equipment faster. Another company recommended that other players in the intermodal supply chain could do more to increase capacity in the surface transportation system. For example, railways operate 24/7 but other parts of the supply chain, such as warehouses, only work five days a week or have scheduled shutdowns, such as the marine terminals. The Committee heard that the capacity of one rail intermodal terminal was increased simply by smoothing freight over seven days instead of five and adding two more shifts a day. It was suggested that others would do well to follow that example.

In Central Canada, witnesses generally had no complaints about rail services. The Committee heard that rail capacity is also not an issue in Southern Ontario because there is sufficient competition between the railways and the trucking industry in this market. By all accounts the container terminals at the Port of Montreal do not have the same problems with rail service as they do in Vancouver. The Committee heard that the Class 1 freight railways typically provide enough rail cars when they say they will. Furthermore, the Montreal container terminal operators and the railways reported that there was good dialogue and cooperation between them. In spite of this reportedly functional relationship, the operators of the marine container terminals in Montreal told the Committee that they found CN Rail less responsive to their needs than CP Rail.

Witnesses in Atlantic Canada generally expressed a similar view as the witnesses in Central Canada. They felt that the railways were providing good service in a timely manner with no shortage of equipment.

As can be seen from the testimony, with respect to railway services, witnesses generally had two major concerns: service disruptions and lack of accountability for poor service on the part of the railways towards its customers and downstream industries. We are concerned that unless these issues are resolved, they will further add to the perception that Canada has an unreliable place to do business.

The Committee is aware that the government has committed to stakeholders that it would undertake a review of railway service within 30 days of the amended Canada Transportation Act receiving Royal Assent. Since the Act received Royal Assent on 28 February 2008, the government is establishing the terms of reference for the inquiry. We believe that this inquiry would be the appropriate venue to address many of the issues raised regarding railway service complaints and possible changes to the federal capital cost allowance rules.

Therefore, the Committee recommends that:

- 1. The government examine an adjustment to the capital cost allowance to encourage railroads to accelerate investment in new equipment.**
- 2. The government examine the reasons for and take appropriate actions to address::**
 - the lack of availability of rail container equipment;
 - the lower level of service and higher freight rates to “captive” shippers;
 - the lack of consultation between the railroads, shippers and ports regarding service delays; and
 - the lack of accountability on the part of the railways in dealing with shippers and ports regarding these issues.

B. TRUCKING SERVICES

The Committee learned that the trucking industry specializes in shipping relatively high value, lightweight materials such as television sets and razor blades. Trucking services are particularly attractive to shippers because they offer flexible, door-to-door service and time advantages over other modes. The trucking industry in Canada comprises mainly relatively small companies, 90 percent of which have less than five trucks, and employs over 250,000 people. The following sections describe what the Committee learned about how government regulation affects productivity in this sector, how labour and skills shortages threaten the supply of some trucking services, and also about regional trucking issues.

1. The Canadian Trucking Industry

“The trucking industry plays a critical role in freight transportation in Canada. We handle about 70 per cent of goods by value that move in Canada over 60 per cent of our trade with the United States.”

*Paul Landry
CEO, BC Trucking Association*

The Committee was told that, unlike what appears to be the case for rail, the Canadian trucking industry always responds to demand, even to its detriment. One witness said that drivers will go after any cargo, anytime and at almost any price. The suggestion that truckers sometimes under-price their services was substantiated by a representative of the trucking industry. Another witness told the Committee that it was almost impossible to earn a living in the trucking industry while playing by the rules, because truckers will work under the table and not respect regulations in order to work. One union representative pointed out that when truck owner-operators are not making enough money, their trucks are not properly maintained, they pollute more and become less safe.

A representative of the trucking industry in Quebec reminded the Committee that, although it seemed like the federal government would like to shift as much cargo as possible from the roads to the railways and the waterways; a truck is always needed at the beginning and the end of the container’s journey. In spite of trucking services being essential to the movement of containers, the Committee was told that federal policy has had a negative impact on the trucking industry. For example, the federal government has not supported the adoption of the newer, more productive technologies through tax credits or accelerated

depreciation. Industry representatives believe that the trucking industry is the only sector of freight transportation that is not subsidized. On the issue of modal shift, a representative of the national trucking industry told the Committee that probably only 10% of freight traffic could as easily be carried by rail as by truck. Both rail and trucking have roles to play in the freight transportation system, which are really quite different in most cases, and it is the shipper that chooses the mode of transportation that best suits them.

The trucking industry's ability to meet demand for container transportation also appears to be threatened by factors affecting the labour force and labour productivity. The Committee heard that there are current and anticipated labour shortages in the trucking industry, particularly in the long-haul sector. Demographics are expected to exacerbate the labour shortage as trucking will lose workers faster than other industries due to the advanced age of the average worker. It is expected that the trucking industry will lose 37,000 drivers per year for the next 10 to 15 years. Furthermore, witnesses told the Committee that trucking may have trouble replacing retiring truckers because of the long hours in long-haul trucking, the complex regulatory environment and the general lack of respect for truckers, which deters new recruits to the industry. Witnesses told the Committee that there was already a skills shortage in the trucking industry because, although commercial driving licenses are easy to obtain, the drivers also need to be computer literate and knowledgeable about cross-border regulation. Although immigration policy has been suggested as a solution to the labour shortage, and some provinces have set up truck driver immigration programs, truck driving is not considered skilled employment with respect to national immigration policy. As such, immigration may not yield a sufficient number of truck drivers to address the problem.

The Committee also heard that federal regulations and a lack of harmonization among provincial regulations have reduced labour productivity in trucking. For example, the new federal trucking hours-of-service regulations that came into force at the beginning of 2007 reduced the work-to-rest ratio for truckers and are expected to increase the number of truck drivers required by 5%. With respect to provincial regulation, double trailer trucks ("longer combination vehicles" or LCVs) are not permitted in Ontario or the Maritimes. As there is a growing demand for containers to be trucked from Vancouver to Montreal because of problems with rail service, the lack of harmonization between the provinces reduces productivity. One witness suggested that harmonization of the regulatory regime in Canada could make truck drivers' work less complicated, while another told the Committee that if driver efficiency were improved, the labour shortage might not be so serious.

2. Regional Trucking Issues

“The reality is that when trucks arrive in the container yard, it is not unusual for a driver to wait anywhere from two to three hours, and sometimes four hours to get a container. It is horrible.

*Claude Robert
President and Chief Executive Officer
Robert Transport Inc.*

In the summer of 2005, trucking services to Vancouver container customers and terminals were largely withdrawn for a number of weeks due to a rate dispute. One witness felt that a surplus of short haul trucking labour in the Vancouver market had put downward pressure on rates in the Lower Mainland and may have partly caused the 2005 dispute because there was not enough work for everybody. The dispute was resolved through a mediated Memorandum of Agreement (MOA), which imposed minimum rates for container truck services.

The Committee heard from trucking industry representatives that circumstances in the Vancouver container trucking industry had improved since 2005. A truck licensing system in Vancouver has led to a more stable business model of company-owned equipment and employee drivers, taking the issue of unpaid time out of the rate equation. Terminals have increased their hours of operation, added more equipment and introduced reservation systems, all of which have increased trucker productivity. Finally, there has been a degree of penetration by organized labour, and contracts have replaced what the MOA was designed to accomplish. A port industry representative confirmed for the Committee that the trucking industry serving Vancouver’s container ports had been serving the port better since the MOA had been in place. The representative of the provincial trucking industry concurred, stating that Vancouver terminal managers appeared committed to improving productivity and working with the trucking industry.

If a similar dispute should arise again, representatives of the British Columbia trucking industry told the Committee that the federal and provincial governments should exercise swift, certain and severe enforcement of the law to prevent a service disruption. Furthermore, the provincial trucking industry feels that the marketplace should establish compensation rates for container trucking and does not approve of the way in which industry participants were driven to the MOA. Conversely, representatives of the unionized container truckers told the Committee that there should be legislation that provides for minimum payments to container truck drivers to prevent another work stoppage and to prevent further degradation of Vancouver’s reputation for service reliability overseas. This

came about in August 2007, when the MOA was replaced by federal regulations upon its expiration. Representatives of the national trucking industry told the Committee that it did not support the federal regulatory intervention in the Vancouver container trucking industry. They felt that the regulations set an undesirable precedent for other sectors of the transportation industry and were contrary to section 5 of the Canada Transportation Act (which sets out national transportation policy).

The Committee heard that the problems related to the trucking industry in Montreal were somewhat similar to those experienced in Vancouver prior to 2005. Apparently, container truckers in Montreal are given a wide window to pick up or drop off containers at the terminals, and drivers spend much of their day waiting because there is no coordination between the management of the container piles in the yard and scheduling of the trucks. A representative of the local trucking industry told the Committee that truckers needed to make appointments to drop off loaded containers at the Montreal container terminals two days ahead of time and to accept whatever time slot was offered. The Committee heard that it was not unusual for truckers to wait from two to six hours to pick up or deliver containers at the port and the railway yards only to find their retail and warehouse customers closed when they finally got there. Given the amount of time truckers must wait and the limited schedule their customers work, a driver must be very organized to make three paid trips per day.

Other container terminals, such as those in Vancouver, are able to give truckers a more precise time window because they manage their storage yards with sophisticated information technology. None of the three international container terminals in Montreal has a computerized reservation system. In their defence, the marine terminal operators suggested that their average truck turn around times were acceptable at between 20 and 25 minutes.

Stakeholder recommendations for improvements in trucking in Vancouver and Montreal generally pertained to commercial decisions on the part of port authorities and terminal operators. For example, one witness reported that, although there are uniform security regulations at the ports, they are not applied in a standardized way at Quebec ports. As the port authority security rules vary from one federal port to the next, truckers suffer long, complicated and redundant security checks. Therefore, it was recommended that the port authorities implement uniform security systems so that a trucker with clearance for one federal port also has clearance at another. It was also recommended that the terminal operators at Vancouver ports should enhance their reservation systems to allow trucking companies to both pick up and drop off containers with a single reservation to reduce wait times. In order to improve truck driver productivity in Montreal, a witness recommended that other parts of the supply chain extend their hours of operation.

The Committee recognizes that the trucking sector is a critical segment of the container transportation system and that addressing such issues as the introduction of new technologies and alleviating the driver shortages are critical to the seamless operation of the

supply chain. We believe that the government should look at the possibility of providing tax credits or accelerated depreciation on the adoption of new technologies by the trucking industry. On the regulatory side, we would encourage the federal government to urge the provinces to attempt to harmonize trucking regulations across the country. Finally, the issue of the skills shortage in the trucking industry must be dealt with in order for the industry to meet the demand for container transportation in the future.

Therefore, the Committee recommends that:

- 3. The Federal Government support the adoption of new technologies by the trucking industry through tax incentives and accelerated depreciation.**
- 4. The Federal Government enable Citizenship and Immigration Canada to classify long-distance truck drivers as skilled labour to allow more foreign workers to take advantage of immigration policy in Canada.**
- 5. The Federal Government work with the Canadian Council of Motor Transport Administrators (CCMTA) to harmonize trucking regulations across the country.**

C. CUSTOMS POLICY

Various witnesses explained to the Committee that, due to the use of ever larger ships for transporting containers, the cost of shipping an individual container has steadily declined. As a result, the number of lower value commodities – for example, lumber, wastepaper, lentils, peas, beans, soybeans and alfalfa – for which container shipping has become an economic option has grown. The Committee heard that container shipping is an attractive transportation option for such commodities and almost essential to market some of them. Commodity producers across Western Canada told the Committee that, despite an increasing number of empty international container equipment moving west to the ports back to Asia, there is a shortage of empty containers. Most witnesses recognized that there is little economic incentive for the owners of international container equipment to serve Canadian producers over higher yield import loads, but they also felt that Canada’s custom policy towards international container equipment contributed to the shortage of empty container equipment available to them. The following sections describe the factors that witnesses believed contributed to the shortage of empty containers in Canada and the problems this shortage causes for agricultural producers in particular.

1. The Shortage of Empty Containers

“It is critical to understand that exports in containers are subsidized by the imports. As soon as the cost of handling that export exceeds the value of the subsidy, then they will not be available.”

*Cliff Stewart
Vice-President, Operations
DP World Vancouver*

The Committee learned that there is a natural imbalance in Canada’s containerized trade, with roughly three import loads to Central Canada for every export load. It is in the interest of the shipping line, which owns the international container, to move the empties back to Asia as quickly as possible for another load of high revenue imports. It does not concern the shipping lines that the volume of empty containers moving through Canada is increasing because they are able to recover the cost of the empty export move from the revenue of the import move. Repositioning empty international containers to serve domestic producers would reduce the number of high revenue cycles the container can make in a year and the shipping line’s revenue. Just like the railways, the shipping lines need to have their assets moving and earning revenue in order to make money.

In addition to the shipping lines' lack of motivation to stop the equipment for export or domestic loads as they cross the Prairies, fewer international containers pass through inland markets today than in years past . The Committee heard that the contents of most international containers used to be distributed from Toronto and Montreal but that has since changed. Today, many of the major retail stores that import their goods in containers have distribution centres near the western ports. As such, cargo is increasingly transloaded from 40-foot international containers into 53-foot domestic containers to mix the loads for further distribution.

One witness told the Committee that one approach that might relieve the container shortage would be to use financial incentives. He suggested that perhaps a \$100 surcharge be placed on every container coming into Canada and then giving it back to the railroads when they fill a container going out. In other words, begin using financial incentives to change behaviour, so that the railroads will ship full containers out. This means that they will spend money organizing their system (e.g., perhaps investing in inland terminals) to be more oriented to filling empty containers. Currently, they have no incentive to do this.

2. The Additional Problem of the Customs Tariff

“My view is that the Canadian cabotage policy for containers is penny-wise and pound foolish.”

*Dr. Barry E. Prentice, Professor
Asper School of Business
University of Manitoba*

Witnesses also told the Committee that Canada's customs tariff on international container equipment had a negative impact on the number of empty containers available to domestic producers. Representatives from the Department of Finance explained to the Committee that tariff item 9801.10.00 set out the conditions under which international container equipment may be imported tax-free into Canada from non-NAFTA countries and used to move freight within the domestic market (otherwise known as “cabotage”). The Committee learned that the tax exemption is for point-to-point freight movements in Canada incidental (i.e., back to the port of origin) to an international move within 30 days of entry or up to 24 months later under additional conditions. As such, there is a disincentive for the owner of the international container equipment to allow the containers to be used in a manner that does not qualify for the exemption, such as a deviation from the original route

or more than one revenue move, because duty and the GST on the assessed value of the container would apply.

According to officials from the Department of Finance, the tariff item is a long-standing provision of the Canadian tariff and the restriction on cabotage was put in place for the purpose of tax equity. Furthermore, the Committee heard that without cabotage restrictions in place, there would be an incentive for shippers to get containers from outside the country rather than from domestic suppliers. In contrast, a witness told the Committee that the U.S. cabotage rules respecting international container equipment allow 365 days of unrestricted duty-free freight movements in the United States and the container does not have to leave by the port where it entered.

A number of witnesses believed that the customs tariff on international container equipment in Canada had a negative impact on Canadian shippers, the environment, intermodal surface transportation service providers and Canadian retailers. Canadian shippers suffer as a result of the customs tariff because the restrictions on cabotage movements further limit their access to international container equipment for domestic and international distribution. Since empty container movements take up as much capacity and create nearly as much pollution as a full container, the Committee heard that relaxed cabotage rules would generate environmental benefits associated with fewer empty container movements. For example, fewer empty container movements would lead to reductions in fuel consumption and emissions from container transportation, and would create surface transportation capacity without any additional investment in infrastructure. The Committee was told that many countries were moving towards relaxed cabotage as a costless way of increasing transportation capacity. If this were to happen, Canadian retailers and transportation providers such as Canadian Tire and CN Rail could retain more of their capital for other investment purposes.

One witness argued that the inefficiency and additional costs imposed on Canadian industry by Canada's current cabotage regulations are widespread and significant. It was suggested to the Committee that the winners of relaxing the cabotage rules on international containers in Canada would be:

- Farmers and exporters – through a greater supply of international container equipment at potentially lower costs;
- Railways – due to increased capacity from fewer empty moves;
- Port authorities – as they will become more attractive to shipping lines because they can offer revenue backhaul opportunities; and
- Consumers – as they may benefit from lower distribution costs.

Conversely, the losers of more relaxed container cabotage regulations would be container stuffers that convert truck shipments into container loads and vice versa.

The Committee was told that the impact on the federal government of relaxing the cabotage rules was not expected to be significant. The revenue from the tariff item appears to be minimal as most containers leave the country before the exemption expires. One witness believed that the increased economic activity generated by a more relaxed container cabotage regime would more than offset any tax losses that might be incurred by the loss of federal revenue from customs duties.

Some witnesses held the view that the best outcome would be for Canada to replicate and harmonize cabotage rules with those in the United States, thus creating a seamless North American market. At the very least, it was recommended that Canada drop the restriction on domestic movements since that aspect of the regulation is probably more hurtful than the number of days a foreign-owned container is allowed duty-free in the country. Also like the United States, it was recommended that Canada allow non-vessel-operating common carriers, such as web-based load brokers or equipment brokers, to operate under the exemption. These businesses do not own the equipment but buy, sell and provision equipment for carriers.

Representatives from both Class 1 railways agreed that more relaxed cabotage regulations on container equipment would make Canada more competitive for North American containers. The Committee was told that more flexibility for cabotage movements could allow the railway to load a container with domestic freight back to the coast and mitigate the cost for steamship lines. Apparently, such a regulatory change would be of particular benefit to Newfoundland, which is expensive to service with international containers under the current regulations.

When they came before the Committee, Transport Canada officials admitted that stakeholders and experts had raised the customs tariff as a problem. They indicated that Transport Canada was examining the issue and allowed that some competitive gains might be easily achieved through minor changes to public policy and regulation. Interestingly, Department of Finance officials told the Committee that they had never received any complaints about this customs tariff.

3. The Plight of Canadian Agricultural Producers

“When commodities were king, we could ship them in bulk. Now the customer is king, and they can get stuff globally very cheaply. Therefore we have to package it, and to package it, we have to put it into containers, and it cannot be tampered with seven times.”

*Doug Campbell
Campbell Agri Business Strategists*

The Committee learned that the volume of agricultural product moving in containers around the world is growing. One witness told the Committee that he expected that the majority of grain world-wide would be moved in containers by 2040, a method which started in the 1970s. Some buyers prefer smaller loads than available in the bulk system, as they are easier to finance. Australia has experienced a surge in demand for its wheat since it started loading it into containers. The Committee was told that some emerging markets, such as China, prefer to receive grain in containers because grain processing is done inland. The Canadian Wheat Board has been known to fill some containers with grain at a customer’s request.

Witnesses told the Committee that, in order to be competitive on world grain markets, Prairie farmers need to package their product and deliver it undiluted and undamaged to customers in containers. The advantages to grain shippers of using containers for shipments are that containers combine both storage and transportation, preserve the identity of the grain and reduce the amount of handling, which damages the product. The buyers of grain benefit from containerized transportation because it presents an opportunity for just-in-time logistics and lower inventory costs. When all things are considered, the prices between bulk and container shipping are more or less competitive and sometimes containerized transportation is less expensive. One witness told the Committee that the disadvantages of using containers for grain are that, currently, there are few loading facilities and that the bulk system could become obsolete. Another witness disagreed that the bulk system would be eliminated; however, arguing that some customers would still want blended wheat.

Containerized transportation is not just an option for grain, but also for other agricultural products such as pulses. The Committee heard that Canada is now the largest producer and exporter of peas and lentils in the world and a leader in the production of chickpeas and legumes. As a leading exporter, the Canadian pulse industry relies heavily on

the ability to ship small lots to various countries around the world as very few buyers on the world pulse market have the ability to handle bulk vessels or have a bulk distribution system inland. A representative of the Canadian pulse industry told the Committee that the demand for containerized pulses is also driven by the need for food quality and safety assurances, as well as traceability and identity protection. Although movement of product by container is key to this industry, only half of the total export tonnage is moved by container. Recognizing that there is little incentive for the owners of international containers to slow down their asset cycles by repositioning containers for commodity exports, the pulse industry told the Committee that its challenge is to figure out how to use more containers without affecting their cycle time.

Due to the competitive benefits of using containers for shipping agricultural products, it was generally the opinion of witnesses who commented on this issue that producers would benefit from changes in the cabotage regulations, which restrict the domestic use of international container equipment. The availability of international container equipment is important because agricultural shippers require the high strength 20-foot international containers for their agricultural product. Ideally, farmers would be able to load their product into containers at the point of origin instead of shipping the crops by hopper car to the port to be transloaded. If, as a result of relaxing the cabotage regulations, the cost of using international containers came down, there would be even more demand for containerized transport from agricultural producers. Research has shown that higher transportation costs reduce Canada's export sales of lentils alone by \$10 million annually. If that result was extrapolated across all crops, there would be a large opportunity cost for Canadian exporters from not relaxing cabotage regulations on international containers. One witness suggested an alternative policy measure to end the shortage of containers available to grain producers, which was for the federal government to invest in half a million containers for grain movements instead of subsidizing the movement of grain in hopper cars.

Another witness felt that moving agricultural product from the bulk system to containers may not be as easy as other witnesses had suggested. The Committee was told that using 20-foot containers for agricultural product may present operational problems for the railways. Apparently the railways prefer to cap high capacity 20-foot containers with a single 40-foot container, which may not be in sufficient supply on the Prairies. Secondly, the Committee heard that high capacity 20-foot containers full of agricultural products are hard on the rail tracks due to their weight, therefore the railways may prefer to ship agricultural products to the coast in hopper cars for transshipment into containers.

The Committee was struck by the fact that the majority of witnesses wanted changes to this system. They strongly believed that Canada should harmonize its customs regulations with those of the United States. We also note that the Minister of Transport told the Committee that Transport Canada has commissioned a review of the regulations governing international marine containers and we would encourage the department to ensure that this study examine the possibility of harmonizing our regulations with those of the United States. In addition, we believe that the department should consider the use of non-regulatory

measures, such as financial incentives, to increase the number of containers available to Canadian shippers.

Therefore, the Committee recommends that:

- 6. Transport Canada negotiate harmonizing its container regulations with those of the United States, in order to increase the supply of empty containers to Canadian shippers.**
- 7. The government remove the Customs Tariff on the point-to-point movement of containers in Canada in order to increase the number of containers available to domestic shippers.**

D. PORT AUTHORITY POLICY

“The Canada Port Authorities must provide a percentage of revenues back to the federal government based on their gross revenue. They must pay property taxes. Seattle and Tacoma do not pay property taxes. In fact, they have taxing authority: They tax the local municipalities to help operate the port. They do not provide any subsidy or funding back to their state government... That is why we do not get many American containers coming through the Vancouver Gateway, because the cost differential is not there.”

*Dr. Michael C. Ircha
Professor of Civil Engineering
University of New Brunswick*

The container terminals in Vancouver, Prince Rupert, Montreal and Halifax belong to the system of federal ports that make up the National Ports System. The federal government owns the infrastructure and property at these sites, but their operation and management was transferred to newly established corporate entities called Canada Port Authorities in 1998. These Canada Port Authorities are governed subject to their corporate Letters Patent and the Canada Marine Act.

Canada Port Authorities (port authorities) are non-share capital, not-for-profit corporations with boards of directors appointed by the federal, provincial and municipal governments. Transport Canada officials told the Committee that the boards of directors run port operations quite autonomously and that Transport Canada was not involved in the day-to-day operations of these ports. The Committee further learned that the relationship between the port authority and the container terminal operator is generally that of landlord and tenant. The port authority provides terminal operators with the ground and sometimes an administration building in the lease whereas the terminal equipment is typically owned by the terminal operator. Construction projects, such as a new berth, are generally a matter of negotiation between the port authority and the terminal operator.

Although the port authorities and their boards of directors control day-to-day port operations, the Committee learned that various instruments of federal policy restrict or prohibit certain business decisions. For example, if the port authority wanted an increase in its borrowing limit, which is set out in its letters patent, a federal government decision and

authority from the Treasury Board would be required. The Committee also heard that the Canada Marine Act:

- requires port authorities to consult Transport Canada if they want to change the nature of a piece of land in their jurisdiction;
- only allows the port authorities to borrow against their revenues, not against federal land within their jurisdiction, so that debtors cannot hold the federal government responsible; and
- stipulates that the port authorities must pay a stipend to the federal government based on their gross revenue.

The port authorities are also required to make payments in lieu of property taxes on the federal land. In contrast, U.S. ports do not pay property taxes or provide any funding back to their state government. The Committee was told that these differences between Canadian port authorities and U.S. ports make them less competitive for U.S. bound containers.

A few of witnesses told the Committee that they thought the financial controls over port authorities were excessive. The most common recommendation was to give the port authorities more freedom to borrow and, hence, invest. One port authority representative told the Committee that Transport Canada oversight of financial matters was not necessary considering that the port authorities are required to have financial statements audited. This port authority representative also took issue with some of the other federal requirements on port authorities, such as the charge on gross revenue levied by the federal government. It was recommended that the charge be calculated based on net revenue instead, because private corporations pay dividends on net profit so the port authority, which is held to commercial principles, should too. Payments in lieu of property taxes on behalf of the federal government were also objectionable to one port authority representative because the taxes pay for services the port does not receive. One port went so far as to say that it would prefer outright privatization of its port so it could more easily raise capital for expansion in the private market. It was also recommended that port authorities:

- have more freedom to invest profits in higher return financial assets;
- not have to pay for Canada Border Services Agency offices; and
- be able to share the cost of dredging with other ports that benefit from it.

One witness commended the federal government for the speed with which it had progressed with its initiative to create a single port entity in the Greater Vancouver area. Departmental officials had told the Committee that recent economic trends had provided

strong support for exploring the potential for amalgamating the Vancouver, North Fraser and Fraser River Port Authorities and entered into discussions with the ports in July 2006. The benefits of amalgamation were seen to be more integrated land use planning, coordination of operations and a unified port marketing strategy. One witness recommended that Canada continue steps towards port rationalization.

In Halifax we heard not only of the operations of the Halifax Port Authority but also of private sector port development at Melford and Sydney. While the private sector developments are in their early stages, it will be interesting to observe their progress and to see how these three ports market their container services. This will be especially critical to the success of Atlantic Canada's container ports, in that we were told that much more marketing is required to capture markets and grow the container business.

Another critical issue that was raised by some witnesses was that urgent action is needed to resolve First Nations issues in order to facilitate the ability to plan and develop the infrastructure around ports. They urge the Federal Government to deal with these in a timely manner so port expansion is not unduly delayed and potential investors are reassured that projects will be completed within a reasonable time frame.

We would note that Bill C- 23, An Act to amend the Canada Marine Act, the Canada Transportation Act, the Pilotage Act and other Acts in consequence which proposes amendments that could make it easier for port authorities to borrow in capital markets and would provide them with unprecedented access to federal contribution funding. This bill is currently before the House. Witnesses, while generally supportive of the bill believe that more could be done to enhance the financial position of the ports. They suggest that ports be allowed to issue tax-free bonds as is the case of their counterparts in the United States and pay the federal stipend based on their net, not gross, revenues. Since these recommendations are consistent with the recommendations contained in the 2003 report of the Canada Marine Act review panel we would encourage the government to examine the possibility of implementing these measures.

Therefore, the Committee recommends that:

- 8. The government implement the recommendations contained in the 2003 report of the Canada Marine Act review panel which called for the ports to be able to issue tax-free bonds and pay the stipend based on their net, not gross, revenues.**

E. SHORTSEA SHIPPING

One witness told the Committee that shortsea shipping (i.e., putting cargo on barges for coastal movements) was the new frontier for freight transportation. In Europe, shortsea shipping is seen as a solution to gridlock, losses in productivity from delays and the adverse environmental impact of goods transportation. Today shortsea shipping carries 40% of all goods transported within Europe whereas trucking carries 45%. The following sections describe what the Committee learned about the potential for, and impediments to, the development of shortsea container shipping in Canada.

1. The Potential for Shortsea Container Shipping in Canada

“Short-sea shipping along the Seaway and Great Lakes system [is] one solution to ease the pressures on our overloaded land-based transportation system, and to add much needed capacity to Canada's transportation system as a whole.”

*Richard (Dick) Corfe
President and Chief Executive Officer
St. Lawrence Seaway Management Corporation*

According to some witnesses that came before the Committee, shortsea shipping offers various ways to increase the capacity and efficiency of Canada's containerized freight transportation system. For example, shortsea shipping services could allow major hub container ports to be established in Canada and containers to be transhipped to U.S. ports without raising cabotage issues. One witness thought that shortsea shipping was one of the few avenues left to deal with the Asian import crisis already clogging the container terminals, railways and roads. The Committee learned that another form of shortsea shipping, i.e., loading and unloading container vessels with barges, allowed China's Pearl River delta to develop into the most productive region in China. Such shortsea shipping activity presents an opportunity for communities on the east and west coasts of Canada, as well as along the St. Lawrence Seaway, because they will never have the land infrastructure to allow them to connect with the larger markets in their respective regions.

The Committee heard that every Canadian would benefit from container shortsea shipping along the St. Lawrence/Great Lakes corridor through the facilitation of the movement of goods and, indirectly, people. It was suggested that the St. Lawrence Seaway could support Canada's effective management of increased container shipments, ease congestion on highways and railways and do it in a manner that is environmentally

responsible. As the Seaway is currently operating at 60% capacity, it has the infrastructure in place to handle significant volumes (250,000-300,000 TEUs annually) of containerized freight on vessels carrying up to 1,000 TEUs each. Supporters of shortsea shipping along the St. Lawrence Seaway acknowledged that it might not be a suitable service for just-in-time shipments, but could be in cases where regular, reliable shipments are required. Although the Seaway will probably not be the primary mover of containers, it was suggested that the Seaway could be part of a matrix of solutions, such as a relief valve for the surface network. An advocate for a container feeder service along the Seaway argued that the proposition would make more economic sense as challenges linked to congested rail and land arteries continue to escalate. Similarly, a representative of the manufacturing industry put forth that a shortsea container service on the Great Lakes might be the easiest way to speed up the border process as it would reduce congestion at the land border crossings.

The Committee heard that there is enormous potential for container traffic on the Great Lakes. One witness told the Committee that it would not be possible to build enough roads in the next 50 years to accommodate traffic growth in Southern Ontario and that a modal shift would be necessary. Shortsea shipping could be a solution to the problem if containers or truck trailers could be shipped across the Great Lakes, taking them off the bridges and highways and saving time and fuel. For example, General Motors is currently loading truck after truck and putting them on the 401 to join the congestion on the Ambassador Bridge to Detroit when the Port of Oshawa is 150 meters from its plant. One witness told the Committee that the cross border surface traffic generated by an automobile produced in Canada could be cost-effectively shifted to the water. In order to take advantage of this opportunity, however, container handling infrastructure and customs facilities would have to be put in place at Great Lakes ports. Apparently, it is possible to turn any port into a container-handling port with as little investment as a \$3 million onshore crane and a barge service. Considering the benefits of shortsea container shipping on the Great Lakes, and the relatively modest cost of the infrastructure, one witness told the Committee that it was imperative that Canada take immediate and urgent action to do something about allowing the movement of barges across the Lakes.

Shortsea container shipping services between Halifax and U.S. ports are intermittent. The Committee learned that shortsea shipping to the United States from Halifax becomes competitive relative to trucking services to points south of Philadelphia. There is less demand in markets further south, however, and truck shipping will always be more competitive in small-volume markets. As such, the Canada-to-Caribbean market is currently served by truck to New Jersey or Miami and then onto a container ship to its destination. The upshot is that if shippers want a cheap price, they will switch to shortsea shipping when it presents a competitive alternative, but if shippers are concerned with faster transit times, they will use trucks.

2. The Impediments to Shortsea Container Shipping in Canada

“There are regulatory burdens on both [domestic and international] routes that are quite different.”

*Dr. Mary Brooks, Professor
William A. Black Chair of Commerce
Dalhousie University*

Although most witnesses acknowledged the potential benefits of the increased use of shortsea shipping in Canada, many felt that services for containers would not develop, largely due to competition from rail and truck services. With respect to using the St. Lawrence Seaway for container shipping, witnesses were not convinced that shippers would commit to a shortsea service that ran only nine months of the year parallel to rail services operating year round. Representatives of the trucking industry questioned whether shortsea shipping services could compete with trucks for next-day delivery. Moreover, barges tend to carry the same kinds of commodities that the railways would carry, not trucks. It was also suggested to the Committee that shortsea container feeder services from a super-port on the Atlantic coast into the interior of the continent might not make sense either. The Port of Halifax would need a larger terminal to handle 12,000 TEU vessels and the feeder vessels would be the same size as the container ships serving Montreal directly today.

The Committee heard that the regulatory burden facing the coastal shipping industry could prevent the development of shortsea container shipping services. For example, the Committee learned that the combined cost of paying the 25% duty on a foreign-built vessel, flagging it in Canada and bringing it up to Coast Guard standards adds almost 50% to the capital cost of a ship. Also, the Canada Border Services Agency’s cost recovery initiative imposes costs on new international services, such as the ones that would be required for new cross-lake shortsea shipping services between Canada and the United States. Furthermore, the costs of pilotage on the Seaway for smaller container vessels used for shortsea shipping would be 200%-300% higher per unit of cargo than those on a bulk shipment. Finally, the regulatory regime in the United States favours cargo entering a port by truck rather than by ship because shippers pay a harbour maintenance tax on the value of the cargo coming into a port but not by truck. (Brooks)

The witnesses that commented on shortsea shipping issues made numerous suggestions for making shortsea container services more viable in Canada and within North America. They recommended that the 25% tariff on imported vessels be eliminated since the Canadian shipbuilding industry does not produce the specialized vessels needed for shortsea shipping. It was suggested that the Canadian shipbuilding industry could even benefit from

new business servicing foreign-built vessels if this duty were removed. Furthermore, it was argued that amount of duty collected was very low and that the tax was probably more trouble than it is worth. One witness recommended that the pilotage regulations should be revised to exempt Canadian-flagged vessels along the St. Lawrence Seaway to help shortsea shipping compete on a level playing field with other modes. It was also suggested that Seaway tolls only cover operating costs and that the Government of Canada, which is the owner of the Seaway infrastructure, take on capital costs going forward. Finally, the Committee was told that the Canadian Coast Guard's Marine Navigation Service Fees (MNSF) should be eliminated because they represent a cost of roughly \$40 million to the marine industry that has no parallel in rail or road transportation. It is expected that lost MNSF revenue to the federal government would be off-set by reduced maintenance of, and investment in, land-based infrastructure as well as environmental benefits to the public (discussed in a section below) due to increased shortsea shipping activity.

Some witnesses noted that cabotage issues, which arise when an international vessel wants to offer a service between two ports in another country and fall under the Coasting Trade Act, make shortsea shipping an international policy matter. The Committee heard that maritime cabotage is actually a free trade issue with the United States, which was not willing to discuss it with Canada until 2005. Although Transport Canada has held workshops on shortsea shipping across the country in the last few years and hosted a conference with the United States and Mexico in April 2006, the only progress that has been made so far towards increased shortsea shipping activity on an international level is an agreement with the United States and Mexico to study best practices. Unless cabotage is permitted for shortsea shipping, foreign shortsea shippers will be limited to operating shuttle operations and will not be able to triangulate business to make the service more economic the way the trucking industry can.

One view is that the cabotage issue can only be resolved bilaterally with the United States or at the NAFTA level, including Mexico. One witness suggested to the Committee that it might be possible for Canada to negotiate a cabotage exemption within the NAFTA under the Memorandum of Cooperation on shortsea shipping. Another witness recommended that the Coasting Trade Act be re-examined in isolation. It was recommended that, during bilateral negotiations, Canada should lobby the United States to eliminate its harbour maintenance tax, which would also make cross-lake shortsea shipping more competitive with trucking services.

From the evidence, the Committee believes that there are significant regulatory and monetary obstacles in the way of an increased role for shortsea shipping of containers. These impediments would have to be eliminated or greatly reduced if this mode of transport was to grow. Changes to both Canada's tax and user charge policies as well as changes to the cabotage regime are essential to realizing this goal.

Therefore the Committee recommends that:

- 9. The government support the growth of shortsea shipping by:**
- **eliminating the federal tariff on imported vessels used for shortsea shipping;**
 - **exempting shortsea container operations from the Marine Navigation Services fees;**
 - **exempting new container ports on the Great Lakes from the costs of establishing new customs services;**
 - **exempting shortsea container vessels flagged in Canada from pilotage fees on the St. Lawrence Seaway;**
 - **negotiating with the U.S. to exempt shortsea container vessels from the harbour maintenance tax; and**
 - **negotiating multilateral cabotage exemptions for shortsea container shipping operations.**

F. INLAND OPPORTUNITIES

Container terminals provide a link between two stages of a container movement, usually between two modes. Marine container terminals facilitate the transfer between maritime transport and surface transport modes but inland container terminals (also known as a inland intermodal terminals or an inland ports) may transfer a container from truck to rail or vice versa. The following sections describe what the Committee heard about the benefits of inland container terminals and the opportunities to develop such facilities on the Prairies and in British Columbia. The prevailing view among witnesses was that inland container terminals, while desirable where they can improve the performance of the container transportation system, are the domain of the private sector.

1. The Case for Inland Container Terminals

“I am a huge proponent of an inland port. We need more of them to make our system more effective... Whether it is in Saskatoon, Saskatchewan or Manitoba or Edmonton, if we look at the rationalized rail system, several inland ports could be opportune.”

*John Vickerman
Founding Principal
TranSystems*

The Committee learned that an inland container terminal has the potential to reduce congestion at marine terminals by providing space to store and services to handle containers en route to their destination. Inland terminals may also present a regional development opportunity, if imports can be off-loaded for redistribution and value-added activities and regional producers have access to the empty containers for domestic or export shipments. Witnesses told the Committee that there are many opportunities along Canada’s rail network between the western ports and the massive markets in the U.S. Midwest to establish inland intermodal terminals for these purposes.

Witnesses expressed the view that North America may need more inland container terminals to make the container transportation system more effective. That said, another witness warned that cargo movements from ship to rail to inland port would need to be virtually automated for the facility to be economic. The Committee also heard that it would be desirable for an inland intermodal terminal to be as close as possible to an intersection of a mainline rail line, a good highway and near an urban centre.

Officials from Transport Canada told the Committee that the location and number of inland container terminals in Canada would probably be the decision of the railways in the end. Other witnesses generally agreed that the development of inland ports should be driven by the private sector. To that end, it was recommended that the federal government do everything it could to facilitate the development of inland facilities that make market sense.

2. Opportunities on the Prairies

“We just have to get this traffic out of Vancouver for the sake of Vancouver so that it can increase its throughput, and the logical solution is to take it over the mountains and do it in the Prairies.”

*C.M. (Red) Williams
President
Saskatchewan AgriVision Corp.*

“What an empty container represents is the ability, the potential, to take our raw products, which we are very good at, and to package them in a premium way ... What we are seeing from China coming mainly through to Chicago is in the range of enough containers to take the entire Canadian crop back out with it. That is the potential we want to attract.”

*Doug Campbell, CEO
Prairie-to-Ports Gateway & Inland Port.*

The Prairie Provinces could provide suitable locations for an inland container terminal. Empty containers, enough of them to handle the entire Canadian crop, currently move between Asia and Chicago. The transportation network already runs through the Prairies, and the export producers are there. Witnesses told the Committee that there was a possibility of attracting container traffic out of the western ports, assembling and marshalling trains, and running them via CP Rail’s Soo Line between Moose Jaw, Portal, Minneapolis and Chicago. The Soo Line also links Moose Jaw to Winnipeg, Toronto and Montreal in the east. There are major railway support activities in Moose Jaw, such as fuelling, marshalling, crew changes and maintenance, which would enable an inland port opportunity. Like Moose Jaw, Saskatoon is also on a transcontinental rail corridor, has cheap land and labour, and could feed containers from Canada’s East and West Coast ports into Chicago and Memphis. Some witnesses suggested that Moose Jaw would be an ideal location for an inland container terminal on CP Rail’s network, whereas an inland container terminal in Saskatoon might make the most sense for CN Rail. Others suggested that Regina offered

another possible location. One witness thought there was also an opportunity for Winnipeg to establish an inland container terminal on CN Rail's line, as CN is targeting traffic between Northern China and the American and Canadian heartlands via Prince Rupert.

The Kansas City Smart Port has been suggested as a model for an inland port on the Prairies due to the proximity of various surface transportation corridors: CISCOR, NAFTA and Asia-Pacific. The "smart" port concept has more of a regional development angle as it contemplates value-added activities through managing and sorting rail traffic and free-trade zone activity in multiple bonded warehouses over a large geographic area, potentially including cities such as Regina, Moose Jaw, Saskatoon, Prince Albert and Winnipeg. It was proposed that assemblers and disassemblers from Asia could locate at the smart port, bringing import containers into the region so that the empty containers could be used to ship regional product out. Another witness agreed that access to empty containers could turn the Prairies into a productive commodity centre and that Prairie products will never make their way to growing markets in China without inland ports to load these products into containers at their origin.

The proponents of this opportunity told the Committee that the future of the Prairies was value-added industry and to develop this there must be a nimble transportation system to handle containers. In order to attract container traffic out of the western ports to inland ports in Saskatchewan, it is important to have effective rail and highway access. To that end, regional stakeholders told the Committee that they would like more support from the federal government to make improvements to highways. Another obstacle to attracting sufficient containers to meet the local demand for export containers is the current lack of local demand for import containers.

Representatives of the railways recommended that the proponents of a Prairie inland container terminal find a way to provide steamship lines with economic incentives to reposition their containers to the Prairies. Another witness agreed that the trick was to figure out how to put 25, 50 or 100 car lots together, fill them immediately and turn a cost into revenue for the railways and shipping lines. One witness suggested to the Committee that it would be wrong to use legislation to make the railway reposition containers because that would be counter to the free market. This witness felt that, if someone could make money paying the railway to reposition the empty cars and charging the farmers to use them, a private investor would be willing to build the simple infrastructure needed. If the railways had access to track and sidings to gather and pull a 6,000-foot unit train of empty containers, switch the engine across the track and pull out a 6,000-foot unit train of stuffed containers, the railways' economics would not be compromised. If the commodity shippers could collect an empty container and return a full one within 48 hours, the shipping lines would not be opposed. The government's role would be to ensure that the shippers have the highway capacity to allow them to collect all of the empty cars at the beginning of the period and return them all full at the end. This witness felt that this minimal, do-it-yourself approach to an inland terminal better suited the needs of agricultural producers on the Prairies than the integrated distribution centre concept promoted by other witnesses. The

witness told the Committee that the commodity exporters would not want a warehouse built for them or to pay someone to handle their product because they can load containers themselves.

3. Opportunities in British Columbia

“For Northern B.C., this creates an opportunity to ship existing export products to containers, where they will command lower loss and damage, higher quality and greater shipment reliability.”

*His Worship Colin Kinsley
Mayor, City of Prince George*

The Committee heard that, due to the absence of inland ports in British Columbia, a tremendous amount of truck and rail capacity is wasted in the province. For example, 50,000 truck loads leave Kamloops for Vancouver while empty containers are coming down through Kamloops to Vancouver on CP Rail. The truck load from Kamloops and the empty container require three more truck movements in the Lower Mainland in order to move the product to the port in a container.

Representatives from Northern British Columbia told the Committee that the Prince Rupert container terminal presents an opportunity to create an inland container terminal in Prince George. The opportunity is supported by the fact that CN Rail’s northern line in British Columbia, which terminates at the Port of Prince Rupert, offers a 90-hour express route from Prince George to Chicago. The Committee learned that this route is the only major western rail line with significant available capacity, and capacity enhancing investments in rolling stock and track are underway. The current shortage of containerized exports to Asia is also a benefit for Northern British Columbia’s emerging opportunity to establish an inland port, as it would create capacity for regional exports to move by container at lower rates and arrive in better condition on a more reliable schedule. The Committee learned that various export products from the region could fill the backhaul container capacity. For example, China would be a market for the beetle-kill Lodgepole pine if it could be exported there in sufficient volumes. Biomass fuel (wood pellets) is another possibility for a regional containerized export to Asia. Agricultural producers from Northwestern Alberta could also benefit from the export opportunity presented by an inland container terminal in Prince George.

It was suggested to the Committee that the resulting enhancement in export capabilities for the region could stimulate other Northern British Columbia industries. Furthermore, accessing the revenue backhaul (export) opportunities in the region would also create a competitive advantage for the container terminal at the Port of Prince Rupert, as rail

carriers, terminals and shipping lines would generally rather move payload than empty containers if there is no repositioning cost or additional delay. Witnesses suggested that the federal government could assist in realizing this opportunity by adjusting tax and land-use policies to facilitate the development of inland ports as well as by making a contribution to the infrastructure.

Within this concept of inland terminals, the committee would like to note that the Port of Churchill may also prove to be an alternative location for the shipment of goods. It could, with more icebreaking, become a specialized port for certain commodities (e.g., specialty grains). With the growing interest in shipping through Arctic waters this port may hold out opportunities for future growth. However, we would also point out that for this vision, to be realized, will take investment for upgraded port and railroad infrastructure. Appendix F deals further with port opportunities in the north.

The Committee supports the establishment of inland terminals as we believe the container transportation system would greatly benefit from their establishment. We believe that they would help to: reduce port congestion by removing containers from the port area quickly; reduce road congestion around ports; create employment opportunities at inland centres; enhance access to shippers at inland points; and improve access to empty containers for potential exporters.

As most witnesses suggested, we believe that the development of inland terminals should largely be a private sector initiative. Strategic decisions will have to be made on where to locate them and this will most likely be driven, to a large extent, by the railways. That being said, some federal policies, such as regulations respecting free trade zone activity and the use of international container equipment (this was dealt with in an earlier section of the report on Customs Policy), or fiscal policy with respect to railroad equipment, could have an impact on the efficient operation of inland container terminals.

On the subject of duty free zones, one witness told the Committee that Canada's export distribution centre policy was ineffective because it had stimulated very little duty-free, value-added manufacturing activity in Canada compared to the free trade zone policies in the United States. Another witness that advocated the potential value of inland container facilities on the Prairies told the Committee that the opportunity depended somewhat on free trade zone activity. We believe that this concept merits more study.

Therefore, the Committee recommends that:

- 10. The government establish inland free trade zones to attract investment and to enhance the efficient and cost effective operation of inland terminals.**

G. SECURITY AND EFFICIENCY

The overarching message from witnesses to the Committee was that security cannot be compromised in order to achieve efficiency gains in the containerized transportation system because security is a necessary condition for trade and commerce in Canada. The following sections outline what witnesses told the Committee about the security environment, ways they considered that efficiency could be improved without compromising security and how the security environment could be levered into a competitive advantage for Canada for North American containerized freight traffic.

1. The Security Environment

“There always will be some element of security risk in the transportation network, but Canadian ports are considered secure by our international principles.”

*Michael H. Broad
President
Shipping Federation of Canada*

Transport Canada oversees port security and its officials told the Committee that the department recognized the need to balance security requirements with the efficient and effective movement of people and goods, and with privacy issues. To that end, Transport Canada aims to put in place investments that are appropriate to achieve the highest practical levels of security while not causing undue impact on the movement of goods and the cost to shippers. Transport Canada’s security initiatives have included the \$115 million Marine Security Contribution Program and the Marine Transportation Security Clearance Program (announced in June 2006 and to be implemented in December 2007), which calls for background checks on marine workers who perform certain duties or have access to certain restricted areas. Transport Canada also created a 96-hour reporting requirement for incoming vessels and cargo and is working with the RCMP and other agencies to develop options for an integrated and better coordinated approach to policing at ports.

Although Transport Canada oversees port security, the Committee learned that the port authority is responsible for security at the port and the terminal operator is generally responsible for security at its terminal. According to witnesses, security operations at the Port of Montreal cost the port authority \$2.5 million per year and it plans to invest another \$10 million to continue to be a secure port. The Port of Vancouver expects to spend about \$31 million on security enhancements over the next five years. Some examples of security

initiatives undertaken by container terminal operators include the deployment of optical character recognition technology at truck gates and 24-hour security patrols. Container terminal operators told the Committee that they would like to see more federal money for security installations at container terminal facilities as the security requirements change.

Cargo security is the responsibility of the Canada Border Services Agency. Canada Border Services Agency requires 24-hour pre-lading information before a container is loaded at the port of origin. If the container is cleared for loading, it may be subject to additional checks when it comes to Canada. For example, the Canada Border Services Agency carries out random inspections (radiation, x-ray, air samples, etc.) of containers on a regular basis as well as risk assessments to identify containers for the various checks and processes. If the container is going on to the United States, an electronic manifest has to be prepared and sent ahead to U.S. Customs and Border Protection for a risk assessment. The Committee learned that an Interdepartmental Marine Security Working Group, which includes all federal departments and agencies that have a role (notably, the Canada Border Services Agency) is involved with the freight transport security system for containers in Canada. The Committee also heard that Public Safety and Emergency Preparedness Canada was studying options for increasing surveillance at the ports.

The international security standard with which Canadian ports, terminals and vessels calling there must comply is the International Ship and Port Facility Security (ISPS) Code. The Code is a comprehensive set of measures to enhance security of marine transportation and trade developed by the International Maritime Organization (IMO). Transport Canada officials told the Committee that the code was implemented in Canada through the Marine Transportation Security Regulations, a performance-based regulatory framework to allow for flexibility at each individual port and facility to meet requirements. The World Customs Organization has set up a framework of standards in respect of container and cargo security and the standards for container security (tracking, reporting, information handling and inspections) are being discussed by the IMO. Although there will always be some element of security risk in the transportation network, the Committee heard that Canadian ports are considered secure by international standards.

The primary security programs with which cross-border truckers comply are the Customs Trade Partnership Against Terrorism (C-TPAT) for expedited entry into the United States and Partners in Protection for expedited entry into Canada. Witnesses told the Committee that it can cost hundreds of thousands of dollars to become C-TPAT certified, which requires that carriers submit detailed information on their operations, trade chain partners and people that they employ. Although C-TPAT is more rigorous than Canada's requirements under Partners in Protection, cross-border carriers currently have to apply for and be approved under both programs. The Committee heard that Canada Border Services Agency had recently started consulting with industry on how to bring the two programs together so that carriers do not have to be certified under both. Canada Border Services Agency is also working on a Canadian version of the U.S. electronic manifest program called the Automated Commercial Environment.

2. Efficiency Issues

“Other [security] initiatives embarked on by the government have created some concern operationally for us. They seem to be at cross-purposes with the objective of moving freight. I will not say it is not required and due diligence but I am talking specifically about security programs that seem to be at cross-purposes with trade.”

*Morley Strachan
Vice-President
Operations and Business Development
TSI Terminal Systems Inc.*

Some witnesses suggested to the Committee that more cooperation between Transport Canada and Canada Border Services Agency (CBSA) bring about efficiency improvements at the ports. For example, the Committee heard that there was a disagreement between the departments over the positioning of Canada Border Services Agency container inspection equipment at container terminals. Some believed this led to placement of the equipment that had a negative impact on terminal operations. Representatives of a Vancouver port told the Committee that the locations selected by Canada Border Services Agency for the radiation portals at the container terminals causes a 10% to 15% loss in efficiency. Another area where the Committee heard there is lack of cooperation between the departments is with respect to reporting to Canada Border Services Agency and Transport Canada separately, which is an administrative burden for the container carriers. One witness recommended that the Canada Border Services Agency president should be made part of the National Marine and Industrial Council so that he or she has a better understanding of the impact Canada Border Services Agency policies have on maritime trade.

The Committee heard about other operational concerns caused by Canada Border Services Agency security initiatives at container terminals. One container terminal operator told the Committee that the decision to scan 100% of containers for radiation could create further congestion and disruptions at the terminals. Another container terminal operator objected to the fact that the CBSA personnel monitoring the scanning equipment would be in Ottawa and perhaps slow to respond, jeopardizing safety at the terminal. A representative of a port authority objected to the fact that it would be responsible for containers identified as a threat on its property by the radiation detection equipment, yet would not have any authority to investigate.

Regarding the Marine Transportation Security Clearance Program, which came into effect in December 2007, some witnesses told the Committee that the program goes too far, while others thought it did not go far enough. Representatives of organized port labour that came before the Committee were opposed to the Marine Transportation Security Clearance Program because they felt that the appeal process was not transparent. The labour representatives felt that the process to appeal a decision to deny clearance should be independent and quasi-judicial instead of being directed to an Office of Reconsideration, which would be internal to Transport Canada. It was recommended that appeals go before a judge or at least to the Transportation Appeal Tribunal of Canada. One container terminal operator told the Committee that it thought that the proposed background checks for port workers seemed over-exuberant. Conversely, a port authority representative recommended that all port employees be required to comply with the Marine Transportation Security Clearance Program, not just employees working in certain port zones as the program proposes. It was argued that the zone approach was not practical because labourers may be assigned to different areas of the port from one day to the next. It was also noted that the program was inconsistent with the policy in the United States, which will subject all port employees to background checks by 2009.

The Committee heard that the new Transport Canada 96-hours notice requirement on maritime cargo has presented a challenge for export loaders in Vancouver. The requirement has had the effect of shortening the delivery window available to export loaders at the marine terminals from about 10 days down to one day. An industry representative told the Committee that this presents an efficiency and competitiveness issue when the railways do not provide the equipment in a predictable manner.

The Committee also heard from some witnesses that the new security measures for containers had actually increased efficiency in some areas of the container transportation system. For example, the Committee learned that the required screening of containers traveling by rail to the United States and the qualification of rail operators under the U.S. e-manifest system had actually given rail a competitive advantage. As a result of these security requirements, a container train can cross the border in 10 minutes or less compared to what would probably be many hours for trucks carrying the same number of containers. Similarly, a representative of the shipping industry told the Committee that some security measures have increased efficiency, such as the 24-hour rules where cargo must be reported to the Canada Border Services Agency.

Representatives of the national trucking industry are concerned that the costs of additional layers of security may not be sustainable over time as there have been withdrawals from the industry over the past several years. In particular, the industry is concerned about duplication and overlap in security programs. The Committee heard that the cost of moving goods continues to be driven up by security measures that are often rolled out and evaluated in isolation from each other. As such, the programs in Canada and the United States do not always complement each other and the situation appears to be getting worse. These

witnesses believe that it is fundamentally important that the Canada Border Services Agency build a security system compatible with that of the United States.

3. Potential Opportunities

“We could provide support to the Americans by dealing with some of their security issues.”

*Dr. Michael C. Ircha
Professor of Civil Engineering
University of New Brunswick*

Some witnesses told the Committee that security concerns with respect to containerized freight in the United States present a potential opportunity for Canadian ports to be the North American port of entry for containers bound for U.S. market. In order to take advantage of the opportunity, however, security measures in Canada would need to be consistent with requirements established in the United States. The Committee heard that the U.S. position on container security is that pre-clearance should take place at the port of origin, which would involve security and labelling at the source and then checking and rechecking the containers’ identities when loaded and unloaded at port. More intensive security screening, such as x-ray or radiation screening, should be done at port on a targeted basis using risk assessments. By installing security inspection technology acceptable to both Canada and the United States at a port in Canada, U.S. customs officials may be persuaded to allow inspected cargo across the border without stopping it, making Canadian ports more competitive for U.S. containers. For example, there are devices that can be installed in every container to analyze light, oxygen, humidity and temperature as well as act as a global positioning system. As such, any container tampering would be recorded by the device and the United States would have a “fingerprint” for the container and no reason to delay it. It is imperative to develop mechanisms and regulatory regimes that will allow us to make every trailer and every container easily cleared through U.S. border control.

The Committee concurs with the witnesses that security cannot be compromised for efficiency with respect to container transportation. To do so, would hinder our ability to move efficiently across the border into the United States. From this perspective, it would seem that some gains could be made in this area by ending duplication and harmonizing security programs among departments and agencies.

Therefore, the Committee recommends that:

- 11. The government harmonizes the security programs among departments and agencies and use appropriate technologies (e.g., such as optical character recognition devices) to facilitate the seamless movement of containers in the domestic and North American markets.**

H. INFORMATION TECHNOLOGY NEEDS

“At present, a container that leaves China for Vancouver has an accompanying document; when it is transferred to railway transportation, it needs another document; next, if it is handed over to truckers, a further document has to be prepared that will accompany the container from the railway to its final destination.”

*Sophie Tremblay
Coordinator, Technical and Operational Matters
Association du camionnage du Québec*

The Committee asked witnesses for their perspectives on the importance of information technology in the containerized freight transportation system. There was quite a divergence in witnesses' views that seemed to depend on their level of involvement in the operational side of the container transportation system.

From witnesses not directly involved in container transportation operations, the Committee heard about the advantages of “intelligent” transportation systems. Intelligent transportation systems, which depend on information sharing, speedy data collection, quick, intelligent processing, and significant and timely feedback to the right people, can increase the productivity of existing infrastructure assets. For example:

- a) if vessel owners use railway manifest information to sort cargo and load vessels for a particular train destination, and
- b) railway operators use vessel manifest information to load trains for a particular vessel call,

it would be possible to double the capacity of the container terminal to the benefit of the whole system without adding new equipment or labour. These witnesses made some general recommendations that federal policies should promote the integration and intelligent sharing of information among players in the container supply chain. It was suggested that governments find a way to motivate vessels and railways to exchange detailed cargo data because it could save billions of dollars in port investment.

On the other hand, representatives from the operational side of the container transportation system – marine terminal, shipping lines, railways, truckers – cited an absence of incentives and practicality with respect to more use of information technology along the

supply chain. According to one container terminal operator, there is no incentive to track containers to a greater degree than they currently are. The Committee was told that service providers and their customers currently have excellent visibility on the ocean carrier, on the terminal and on the railway and that no one seems to want to pay the cost of these systems talking to each other. Furthermore, the Committee heard that competitive factors may prevent an exchange of detailed cargo information from developing between the modes in the future.

In order to facilitate the exchange of manifest data between the railways, shipping lines and the trucking companies, a representative of the Quebec trucking industry recommended that Canada adopt something like the U.S. Uniform Intermodal Interchange Agreement. The Agreement manages all of the relevant information in a single digital document, which is accessible at any time online, as shipments move from one mode to the next, improving transparency along the supply chain. The adoption of a system in Canada that is consistent with the one in the United States would greatly facilitate intermodal and cross-border transport in Canada.

It seems that the transfer of detailed cargo data is not practiced to a great extent between federal departments and agencies either. A representative of the shipping industry told the Committee that the Canada Border Services Agency and the World Customs Organization had endorsed a single window concept, whereby manifest data would be transferred electronically to Canada Border Services Agency from the originating ocean carrier and the cargo could be further handled after entry into Canada without further data entry. Nonetheless, this concept may not come to realization because a number of federal agencies need vessel information for security, traffic and inspection purposes, among others, and privacy legislation prevents them from sharing it. To overcome these obstacles, one witness told the Committee that an impartial organization should be established to manage the shared manifest data in order to avoid the potential competitive and privacy issues.

The Committee is of the opinion that anything that can be done to expedite the movement of containers can only be viewed in a positive light. If sharing of information, albeit even on a limited basis, would accomplish this we believe steps should be taken to achieve this end. This should be undertaken not only by the stakeholders in the container shipping system but also by the relevant government departments that are involved. From the testimony, there appears to be a number of technologies available (e.g., electronic bills of lading) to assist in this endeavour.

We recognize that some witnesses were reluctant to embrace information technology sharing. In order to address this we would urge the federal government to take the lead on this and come up with ways to motivate players in the supply chain to share information. We believe that one such initiative that could push this forward would be for the federal government to develop an information sharing protocol similar to the U.S. Uniform Intermodal Interchange Agreement. Adoption of such a system, consistent with the one in the United States, would greatly facilitate intermodal and cross-border transport.

Therefore, the Committee recommends that:

- 12. The government adopt an information sharing protocol similar to the U.S. Uniform Intermodal Interchange Agreement to facilitate the movement of containers in the domestic and North American markets.**

I. ENVIRONMENTAL CONSIDERATIONS

International trade is the main driver of containerized freight movements and growth in trade is expected to continue unabated. Even when the most efficient mode is chosen, the transportation of containerized freight generates air pollution, which contributes to climate change and smog, and noise pollution. The infrastructure needed to transport containerized freight consumes land and waterways. For these reasons, many transportation infrastructure projects require both federal and provincial environmental assessments. The following sections describe what the Committee heard from witnesses about the environmental impacts of containerized freight transportation and the process by which infrastructure projects may be approved.

1. The Relative Environmental Impacts of Different Modes of Transportation

“If we as consumers would rather be less impulsive and not demand our goods tomorrow but demand our goods two weeks from now, we might find that they travelled by a more environmentally friendly method.”

*Dr. Mary Brooks, Professor
William A. Black Chair of Commerce
Dalhousie University*

Based on witnesses’ testimony, the Committee learned that it is difficult to compare the environmental impacts of the different modes involved in intermodal transportation. For example, the Committee heard that the St. Lawrence Seaway is an environmentally responsible solution for container transportation as fuel use and greenhouse gas emissions per tonne-kilometre in marine transport are one-tenth of those generated by truck and one-half of those generated by rail. However, the Committee also heard that, although vessels produce less greenhouse gas emissions per tonne of cargo than trucks, they produce more sulphur emissions, hence create more acid rain. Trucking industry representatives told the Committee that rail and marine transport create more pollution per litre of fuel than trucking and produce more greenhouse gas emissions and particulate matter.

There appears to be no doubt, however, that congestion and delays in the container transportation system increase the negative environmental impacts of container movements.

For example, congestion at the marine terminals leads to multiple handling of containers by combustion engine ground equipment, and trucks waiting to pick up or drop off containers are forced to idle their engines. Although the terminal operators have little control over the traffic flows to and from their terminals, they have taken steps to reduce the environmental impact of congestion such as enforcing limits on vehicle idling, using biodiesel fuel in their vehicles and buying hybrid vehicles. For its part, Transport Canada officials told the Committee that the department hopes to reduce the environmental impact of container transportation by making the flow of containers more efficient through reduced idling and congestion. Departmental officials also told the Committee that shortsea shipping, which was discussed in a previous section, could also reduce the road congestion caused by trucks in built-up areas.

In order to reduce the environmental impact of trucking industry operations, representatives of the trucking industry in British Columbia expressed their support for the Canadian Trucking Alliance's 14-point clean air action plan from 2006.⁵ The Committee heard that the plan could have the combined impact on air quality and greenhouse gas of removing tens of thousands of heavy trucks from Canadian roads. From a federal policy perspective, this plan would require:

- a) increases in the capital cost allowance rates for 2007-2010 trucks and/or other financial incentives,
- b) reduction in the federal excise tax on ultra-low sulphur truck diesel,
- c) reinstatement and enhancement of the Natural Resource Canada rebate on truck idling technology, and
- d) endorsement of the introduction of speed limiters on all trucks operating in Canada,

among other federal and provincial policy measures. The Canadian Trucking Alliance's latest environmental strategy is Enviro Truck. Its purpose is to expand the use of 2007 and later truck engines in the marketplace as well as other technologies to reduce the environmental footprint of the industry. The industry would like the government to partner it through tax credits and other fiscal mechanisms at its disposal to increase the market penetration of this equipment. The number of 2007 or newer engines on the road is probably in the low tens of thousands at the moment because they are very expensive. Representatives of the Quebec trucking industry told the Committee that it would like to see the federal government encourage harmonization of provincial regulations to allow energy efficient technologies to be used for longer hauls across the country. For example, longer combination vehicles (double trailer trucks) between Quebec City and Toronto would use 50% less energy than two tractor-trailers, but are prohibited in Ontario. Another witness

⁵<http://www.cantruck.com/news/news/2006/pdf/CTA-CleanAirAct-GHG-Smog-TruckingPlan-Canada-Final.pdf>

supported changes to the capital cost allowance rules for trucking companies, arguing that they would address a current imbalance with the United States and allow transportation companies to purchase new equipment faster.

Representatives of the shortsea shipping industry and infrastructure in Central Canada told the Committee that it was unfortunate that the environmental advantages of using marine transport for container movements were not factored into the choices of shippers. It was suggested that the only party that could make the environmental impact part of the equation would be the federal government through incentives.

A representative of the railway industry told the Committee that there were two things the federal government could do to lessen the congestion in the container transportation system and hence the environmental impact of containerized freight. First, the witness suggested that the federal government support more grade separated rail crossings, which would reduce the amount of vehicle congestion at the crossings. Secondly, the witness suggested that the federal government should shorten the environmental review process, to be discussed in the next section, so that more capacity could be built more quickly. They felt that it should be possible to shorten the time it takes to conduct an environmental review while being diligent and following the rules.

One port authority witness urged the federal government to consider more carefully the relative benefits of different environmental measures. The Committee heard that some federal regulations contemplated for port authorities have threatened their competitiveness while providing little benefit. For example, Transport Canada proposed regulations that would have port authorities supply electrical plug-ins for ships to prevent idling engines at berth, which would cost \$3 million per berth to the port and \$1.5 million per ship for the ship owner. Given that a new hydro plant might be needed to supply electricity to a cruise ship, the port authority believes that a greater benefit would be generated if the money was invested in a mitigation project instead.

2. Environmental Red Tape

“In Canada, we have probably the most complex environmental system anywhere in the Western world and maybe even beyond that. It is an extremely convoluted and complex process.”

*Captain Gordon Houston
President and CEO
Vancouver Port Authority*

While witnesses generally acknowledged the negative environmental impacts of transportation services, there was a good deal of concern about the speed with which new transportation infrastructure could be developed due to the environmental assessment process. Many witnesses suggested that the long environmental assessment process was having a negative impact on Canada’s efficiency and competitiveness with respect to containerized freight traffic. For example, the Committee heard that a new transportation corridor in Southern Ontario had already been the subject of six years of environmental assessment work, yet the process was expected to take another 10 years.

The delays in environmental approvals that witnesses identified as a problem in Canada are not uncommon in North America. The Committee heard that environmental concerns and regulations had tied up some 40 major projects at the ports of Los Angeles and Long Beach for three and a half years. If processing time is an indicator of due diligence, elsewhere in the world the environmental standards appear to be less stringent. For example, a new container port – with more capacity of than all of British Columbia’s container terminals – and a 32-kilometer long highway to serve it were approved and built in Shanghai, China within a three year period. It is interesting to note that, despite perceptions to the contrary, one witness assured the Committee that Asians are increasingly nervous about environmental issues and that it may be worth branding and imaging Canada’s transportation system in a green and ethical way to maintain and grow its share in that market.

Many witnesses before the Committee felt that the uncertainty with respect to the length of the federal environmental approval process threatened the business case for port-related projects. One witness suggested that a mechanism for pre-approval would be useful so that expansion could take place within the time frame that market conditions dictated. Several witnesses suggested to the Committee that it would be ideal if the federal and provincial governments processed the same information and evaluated mitigation requirements together within a specified timeline. Furthermore, it was recommended that the federal government ensure that there are sufficient resources within the public service to

guarantee timely and stringent environmental reviews that meet the needs of the public and investors.

The Committee fully appreciates the impact that transportation and transportation infrastructure can have on the environment. We believe that any measures that can be taken in terms of mitigating these impacts is to the benefit of Canada. Witnesses told us that efforts to limit congestion and delays in the container transportation system could limit environmental impacts. Also, harmonization of provincial trucking regulations could help allow for more energy efficient to be utilized in long haul trucking. In addition, we believe that new truck technologies could also have a positive impact in that they are more fuel efficient and are a cleaner technology.

In terms of environmental assessments, we understand the concerns regarding the length and unpredictability of the process as well as the divided jurisdictions between the federal and provincial governments. At the same time, we also understand that this is an important and necessary step in the process for building new and expanded infrastructure. That being said, we believe that there may be opportunities, such as a coordinated federal-provincial review process, to streamline the procedures to allow infrastructure to be build in a timely manner. This would also assist the ports in developing the business case for port-related projects.

Therefore, the Committee recommends that:

- 13. The government encourage the harmonization of provincial trucking regulations in order to maximize the use of energy efficient technologies such as Enviro Truck engineering.**
- 14. The government make changes to the capital cost allowance for equipment to allow transportation companies to purchase the newest trucking technologies that are more fuel efficient and cleaner.**
- 15. The government expand funding for grade separations at level crossings to reduce congestion and train and truck vehicle idling.**
- 16. The government coordinate its environmental review processes with those of provincial governments and ensure that the reviews are completed within a reasonable time frame so that transportation infrastructure can be built in a timely manner.**

J. LABOUR ISSUES

“The industry will need to recruit and train tens of thousands of workers across Canada in the next ten years not only to replace the retiring workers but also to expand the workforce to handle the increase in traffic volumes for container imports and break bulk exports.”

*Lisa Baratta
Manager, Corporate Services
Western Transportation Advisory Council*

Witnesses told the Committee that the Canadian container transportation system was suffering from its own success, with the supply of labour barely keeping up with demand at various points in the supply chain. The labour and skills shortages facing the trucking industry across Canada were discussed in a previous section, but the Committee was also told that the marine container terminals were finding it a challenge to find, train and keep labour, even though port jobs pay well above the average annual wage in Canada.

The Committee was told that the transportation industry will need to recruit and train tens of thousands of workers across Canada in the next 10 years to replace retiring workers and to expand the workforce to handle the increase in container traffic volumes. For example, the Committee heard that there will be a need for another 1,800 longshoremen by 2010 in British Columbia and that, by 2012, 50% of the rail workforce will be eligible for retirement. According to one witness, the problem is that the transportation industry is not a top-of-mind employer for most Canadians.

To remedy the situation, it was recommended that the federal government take initiatives to ensure that there is sufficient labour in the transportation sector. Firstly, more federal money could be provided for a sustained marketing effort of transportation sector jobs because the economy will suffer if there are labour shortages. Furthermore, it was recommended that apprentices in the transportation trades have access to federal Employment Insurance while they are in school as other trades, e.g., plumbers and electricians, do. To address the trucker shortage, the federal government should make immigration policy part of the answer. Finally, across all sectors, it was suggested that removing the restrictions on when people retire and when pensions may be collected could encourage people to remain employed another five years.

Although recruitment appears to be the number one labour issue with respect to containerized transportation, labour disruption is another potential problem. The

Committee heard that the ports in Montreal, Vancouver and Halifax had enjoyed sustained periods of labour peace, but recent labour disruptions have included the service withdrawal by Vancouver container truckers in 2005 and the Class 1 railway strikes early in 2007. The Committee was told that both of these disruptions had a profoundly negative effect on the performance of the overall supply chain, particularly on the west coast, and to Canada's reputation overseas. Those witnesses that commented on these events felt that the federal government had not responded in a timely or meaningful way to the labour disruptions affecting the transportation system and that labour stability was necessary to re-establish Canada's reliability.

One witness told the Committee that Australia was a good example to follow in order to achieve labour stability at our ports. In the case of Australia, labour practices began to change in the 1990's when the federal government undertook general labour reforms intended to modernize the workforce. These reforms were intended to reduce labour redundancy and in the case of the ports saw a move towards dispensing of hiring halls and moving towards company/salaried employment. This witness stressed that the elimination of an overtime culture and adoption of salaried labour with permanent full-time and part-time employees working to a 24/7 roster is a vastly superior system to what we have in Canada with our antiquated hiring hall/dispatch practices. Basically, what happened in Australia was a realization by the government, management and labour that the old practices could not continue – they were too costly and placed Australia in an uncompetitive position.

The Committee views the labour situation as a serious issue both in terms of labour supply and labour disruptions. On the supply side, there needs to be a concerted effort to recruit and retain a skilled workforce. On the labour disruption side, there needs to be surety that labour disruptions can be kept to a minimum in order to dispel Canada's negative reputation overseas regarding a reliable container transportation system. Federal leadership and creativity are required to drive this initiative and we believe that the federal government can learn from the Australian experience.

Therefore, the Committee recommends that:

- 17. The government commit more resources to a sustained marketing effort to attract more workers to the transportation sector.**
- 18. The government give access to apprentices in the transportation trades to federal Employment Insurance while they are in school.**
- 19. The government fund training programs, including the provision of appropriate technologies, to ensure that adequate personnel are properly qualified to meet the future labour demands of the container transportation industry.**

- 20. The government take the lead in establishing a new port labour regime in Canada and, in doing so, examine the structure of dock-related labour in Australia to find ways to transfer the lessons learned to Canada.**

- 21. Port marketing trade missions include labour representatives to assure clients and potential clients that labour is an integral part of the port organization, and all parts are working together to achieve labour harmony and the efficient running of the ports.**

K. FEDERAL INTERMODAL POLICIES AND PROGRAMS

Many witnesses shared their views on federal intermodal policies and programs with the Committee. The following sections describe what the Committee heard about federal infrastructure spending, transportation policy generally and some of the consequences of these on residents of port communities and other industries.

1. Federal Infrastructure Programs

“Transportation should not be viewed by government as only another industry source of tax revenues. In the U.S., for example, transportation is seen as essential to trade competitiveness and therefore it is in the national interest to improve it.”

*David Colledge
Colledge Transportation Consulting, Inc.*

The Committee heard that major transportation infrastructure investments could restructure the Canadian economy, changing how we produce and with whom we trade. It was suggested that further federal government investment in the container transportation system would be justified in a number of situations. For instance, in cases where the public benefits from the investment, such as reduced road congestion or better air quality, or where a project is too risky or requires too fast a payoff for the private sector.

Witnesses told the Committee that Budget 2006 committed to investing \$16.5 billion in infrastructure and that the last federal budget seemed to acknowledge that there was a need for accelerating public spending in intermodal infrastructure. Recent infrastructure programs, such as the Asia-Pacific Gateway and Corridor Initiative, allocate federal funds for intermodal infrastructure such as road upgrades and railway crossing projects. Although the Asia-Pacific Gateway and Corridor projects in the Lower Mainland of British Columbia seem to enjoy the support of stakeholders, the Committee heard that stakeholders felt that more needed to be done and that implementation lacked urgency.

Witnesses provided numerous suggestions for federal investment in the container transportation system. While some simply suggested that the federal government dedicate more funds to the provision of infrastructure, others were more specific. For example, it was recommended that that federal money would be better directed at road improvements and

rail overpasses, particularly at serious bottlenecks, since there are now enough private sector investors for marine terminal infrastructure. It was also suggested that the federal government provide long-term funding for transit in metropolitan areas, such as the Evergreen Light Rail Line in Vancouver, to address urban gridlock. The Committee heard that there should be a special port fund in spite of section 25 of the Canada Marine Act, which generally prohibits federal appropriations. Finally, it was recommended that public investment be based on clear investment criteria that support other federal objectives such as safety, security and the environment.

Witnesses also recognized the role of the private sector in developing a more efficient transportation system for containerized freight. A few made the point that the policy goal of the federal government should be to develop policy to ensure that obstacles to private investment in the transportation system are removed. The Committee was told that the ideal federal policy environment would ensure that private-sector investments in transportation infrastructure and technology to expand system capacity take place in a timely manner. It was suggested that more private sector involvement could be encouraged if the federal government offered more opportunities for public-private partnerships. The Committee was told that the federal government could also reduce risk for private sector investors by funding forecasting work, which had been a catalyst for private development in the Port of Prince Rupert.

The Committee recognizes that federal funds have gone into the development of port and container infrastructure and that without such funding some projects may not have been realized. We also agree with the witnesses who stated that by in large, the private sector should be the major driver for infrastructure development – there simply is not enough federal money to fund all the container infrastructure projects. We believe that the policy goal of the federal government should be to make this easier by removing obstacles to private sector investment. Such obstacles as tax and depreciation policies for the acquisition of new equipment and technologies could be addressed in this area.

We would note that, in July of 2007, the federal government announced the seven year, \$33 billion Building Canada Plan for provincial, territorial and municipal infrastructure. Building Canada funds are to be directed to investment in infrastructure projects that contribute to increased trade, efficient movements of goods and people, and economic growth. Examples of eligible projects would include gateways and border crossings, highways and shortsea shipping. All projects seeking \$50 million or more in federal contributions will be required to assess and consider the viability of undertaking the projects as a public-private partnership. We believe that this could assist in what witnesses saw as deficiencies in federal funding for container infrastructure.

Therefore, the Committee recommends that:

- 22. The government through its Building Canada Plan fund port terminal projects to provide capacity required to handle future growth in the container transportation industry.**

2. Transportation Policy

“Transport Canada and the Government of Canada should re-emphasize that transportation is a strategic domain for Canada.”

*Teodor Gabriel Crainic
Director*

Intelligent Transportation Systems Laboratory

The Honourable Lawrence Cannon, Minister of Transport, Infrastructure and Communities, told the Committee that it was the federal government’s goal to undertake transportation projects that would give Canada a competitive edge over the United States. To this end, Transport Canada was making major connection points between the modes a priority for future investment. In order to do this, Transport Canada told the Committee that Canada needed a policy framework that strengthened the effectiveness and competitiveness throughout the container transportation system and that revealed bottlenecks, backlogs and other delays. The Committee heard that Canadians in general would benefit from this policy as the cost of transportation for all Canadians would be lower if Canada could increase the number of containers using its intermodal system, spreading the fixed costs of transporting containers over more customers.

Departmental officials told the Committee that integrated transportation planning was key to Canada’s long-term solutions to be competitive and to make inroads into the integrated Asian economic force that had developed. To support its planning, Transport Canada has conducted, and continues to conduct, studies to understand container demand and supply issues. Nonetheless, Transport Canada officials told the Committee that the department needed to have a better understanding of how decisions were made along the supply chain and which bottlenecks precluded efficient flows.

Contrary to testimony from Transport Canada, other witnesses told the Committee that they felt that federal transportation policy did not receive the research support it merited. One witness noted that transportation was not one of the National Sciences and Engineering Research Council’s strategic sectors and the Canadian universities working on transportation issues received only enough financing to support basic research. The

Committee heard that Transport Canada largely abandoned its university research program in the 1980s and does not have a national transportation research program today.

It was recommended to the Committee that the federal government re-emphasize transportation as a strategic domain for Canada with a research program that focuses on national policies and issues. The program should have clearly stated themes, be well-structured and have appropriate levels of funding, which should be allocated through a non-bureaucratic process. The National Sciences and Engineering Research Council could be responsible for the management of such a program. Such a program could produce reliable and detailed demand and capacity forecasts, which are needed to validate the magnitude, timing and urgency of container capacity issues. At the very least, it was suggested that the federal government should find a way of pooling the information among the various stakeholders.

Most of the witnesses that commented on Canada's national transportation policy noted that it was largely absent. A representative of the trucking industry questioned the ability of Transport Canada to develop a comprehensive transportation policy considering that Transport Canada had downloaded responsibility for trucking to the provinces in the late 1980s. Several witnesses recommended that Canada establish a national policy that makes trade and transportation higher priorities for the economy and monitors the performance of the transportation system. It was suggested that such a policy would be justifiable because a robust transportation economy would help finance other national priorities such as healthcare, education and social programs.

A number of witnesses commented specifically on Gateway policy, since Transport Canada had been working on a national policy framework for gateways and corridors. It was recommended to the Committee that the Canadian national gateway strategy should include all of Canada, have a governance mechanism that brings together the players from across the country with all levels of government and the private sector, capitalize on the shift in global markets and production systems, and contemplate the human resources (both in terms of skills and labour) that will be necessary to make the system work. It was also recommended that gateway policy promote the efficiency of the whole transportation network and incorporate long-term land-use planning for intermodal yards and other freight facilities, which are large and noisy but essential for the expansion of the transportation system. Some witnesses specifically requested that the federal government intervene with respect to the encroachment on transportation corridors and port land. Finally, it was suggested that the federal government's role in gateway policy should be to address issues that are specific to particular regions while having the overall interests of Canada in mind over the long term.

Representatives of the Province of Nova Scotia urged the federal government to appreciate the national significance of Nova Scotia's role in the global supply chain and Canada's competitiveness for trade. The Committee was told that Canada needs a gateway for Asian traffic on each coast to be competitive for world trade. It was suggested that the federal government could assist with the development of the Atlantic Gateway by providing

help with: marketing the gateway to the rest of the world; training, research and development to make the ports as efficient as possible; and, developing infrastructure to meet the needs of the expected traffic growth.

Many witnesses also felt that the federal government was behind in introducing regulatory and legislative reform. The Committee heard that, as a result, there was an environment of regulatory uncertainty in the transportation sector, having a chilling effect on investment decisions. It was suggested that, although the participants in the industry may never be fully satisfied with the regulatory regime, what was important was that they knew what the rules were, could operate with them and could make their decisions accordingly. A number of witnesses recommended that the outstanding recommendations for amendments to the Canada Transportation Act and the Canada Marine Act be made without further delay. As mentioned in previous sections, various witnesses recommended that the federal government harmonize the Canadian regulatory environment respecting container equipment with the United States and be more proactive in terms of potential labour disruptions. As discussed in the previous section on railway services, there was a difference of opinion among witnesses as to whether accountability among participants in the container supply chain might be better driven by incentives or regulation.

The Committee was struck by the fact that many witnesses felt that there was no national transportation policy and that there was insufficient funding to support research to develop such a policy. Witnesses noted that transportation was not one of the National Sciences and Engineering Research Council's strategic sectors and that the Canadian universities working on transportation issues received only enough financing to support basic research. We are of the opinion that a clearly defined federal policy regarding transportation and trade would strengthen the effectiveness and competitiveness of the container transportation system.

Therefore, the Committee recommends that:

23. The government re-emphasize transportation as a strategic domain for Canada by establishing a research program focused on national transportation policies and issues.

With regard to the gateways, some witnesses told the Committee that there needs to be a national gateway policy with a governance mechanism that brings all of the stakeholders together from across the country with all levels of government and the private sector. The federal government's role in this policy would be to address issues that are specific to particular regions while having the overall interests of Canada in mind over the long term. The Committee believes that this approach has merit and we will have more to say on this in the following section on stakeholder communications.

3. Relations between Industry, Government and other Stakeholders

“We need leadership in breaking down the silo approach to resolving transportation issues where the various service providers only address issues from their own perspective.”

*Bob Wilds
Managing Director
Greater Vancouver Gateway Council*

The Committee learned that the containerized freight transportation system in Canada comprises myriad public and private sector infrastructure providers and private sector services, which are regulated by both the federal and provincial governments. For this reason, witnesses generally expressed the view that coordination and communication among all of the players in the system were extremely important. The Committee was told that, prior to making additional investment, transportation infrastructure owners needed to know that there was sufficient demand to support their investment and that everybody else in the supply chain would make their own necessary investments.

Testimony from witnesses suggested that bi-lateral relations between container transportation system stakeholders were inconsistent and that multi-lateral communication including government was largely absent. For example, some witnesses reported having a good relationship with the federal government or one of the neighbouring links in the supply chain, while others told the Committee that they had problems dealing with another service provider in the transportation system or felt they had no input in federal policy. With respect to multilateral collaboration, the Committee heard that there have been few forums for all modes to discuss intermodal issues together with several government agencies. Instead, the tendency is for each mode to have discussions on their own with government agencies and to act without consulting each other. Transport Canada officials told the Committee that the department had convened a forum including major transportation providers, commodity groups, retail and shipping interests, and Western provinces for the first time in fall 2005 to talk about container forecasts and expectations. Officials also said that the department intended to organize a meeting of this sort every couple of years.

The Committee learned that a private sector initiative, which has greatly enhanced the communication, coordination and planning among industry players, is the gateway council. The gateway council provides a forum where key regional stakeholders and government can work collaboratively on transportation challenges and solutions and set policy with respect to intermodal issues. For example, the Greater Vancouver Gateway Council designed a

major commercial transportation system for the Lower Mainland that was intended to address the major traffic and congestion that had developed as a result of the lack of infrastructure investments by all levels of government. There are now three other gateway councils established in Canada – in Montreal, Halifax and Southern Ontario. The Greater Vancouver Gateway Council was the prototype, however, and the Committee heard that the consensus built over the last ten years in Vancouver allowed governments to respond to the needs of this gateway relatively quickly and in a collaborative fashion. Transport Canada is currently working with other players in Atlantic and Central Canada on their gateway strategies.

It was suggested to the Committee that the communication between ports, railways and the federal and provincial governments needed to become more strategic. Container transportation infrastructure owners need to know when adjacent infrastructure investments will take place in order to plan their own investments. Communication with the provincial government is essential so that an appropriate road network is in place to serve the new intermodal infrastructure. At the federal level, some witnesses recommended that the government convene a forum on a regular basis with customers and users of the transportation system to revisit container traffic growth forecasts, among other system issues

The Committee is concerned with the inconsistent communications between the stakeholders in the container transportation system and the apparent lack of communication with government. We believe that communication and coordination among all players in the system are extremely important to achieving a seamless transportation network. Without this, stakeholders are not participating to the fullest in an integrated system but rather, they are operating in their own particular silos. As we stressed in our introduction, container transportation is a system and for it to operate at the optimum there must be active communication and problem solving among all of the players. The system is too fragile to have the components operating in isolation.

As was the case in our discussion of a national governance mechanism in the previous section we believe that a national strategy based upon the gateway model may be the best approach in dealing with these issues. Stakeholders told the Committee that the gateway councils have greatly enhanced communication and coordination among industry players. We see this strategy being developed at the national level, largely by the private sector in the container transportation industry, with a national governance mechanism to bring stakeholders and governments together from across the country. What we are calling for is the creation of a National Gateway Council that would promote the efficiency of the whole transportation network and market its use to the world. As previously note, the federal government's role in this concept would be to address specific regional issues while having the overall interests of Canada in mind over the long term.

Therefore, the Committee recommends that:

- 24. The government assist the stakeholders in the container transportation system to establish an independent National Gateway Council to bring together national and international players in the container transportation system and governments from across the country to enhance communications, bring efficiencies to the system and market Canada's container transportation system to the world.**
- 25. The Minister of Transport oversees the progress on implementing the recommendations in this report and notify Parliament, within one year of the tabling of this report, on the state of that progress.**

4. The Local Impacts of Federal Policy

“Communities that are host to industry are impacted when they are not thoroughly considered and addressed.”

*Her Worship Lois Jackson
Mayor, Corporation of Delta*

The Committee learned that there are both costs and benefits for the communities where major intermodal transportation infrastructure, such as a gateway port, is located. Communities benefit from container traffic because the transportation sector offers well-paying jobs, but the costs include traffic congestion, reduced quality of life in residential areas, increased road maintenance and policing costs, and underperforming land in terms of tax revenues.

One witness explained to the Committee that the more significant economic benefits of major federal intermodal infrastructure are not shared equally with adjacent communities. This is because Canada's federal, provincial and municipal tax systems reward senior levels of government for container traffic growth, but not the municipalities. Local tax revenue does not increase as intermodal traffic grows, as do provincial and federal income and sales taxes, rather it may fall if growth has a negative impact on residential property values. In fact, a shortage of residential tax revenues may lead municipalities to charge higher property tax rates to businesses, which works against intermodal traffic development. In the United States, municipalities share directly in the economic success of their local port infrastructure and do not need to turn to property taxes to increase revenues.

The Corporation of Delta, which is part of Greater Vancouver, is an example of a community that perceives the costs of intermodal traffic to be higher than the benefits. The Committee heard that there was concern that prime agricultural land was being used for container storage, which seemed unreasonable and created an eyesore for many people in the Lower Mainland. The container operations at Deltaport create substantial rail and road traffic, and hence safety concerns, for the community, and the trains traversing Delta can impede emergency vehicles waiting to cross the tracks. The Committee was told that the federal government expected communities to contribute 25% to the cost of constructing rail overpasses and grade separations, but that the property taxes collected were not sufficient. Finally, the Committee heard that port policing and dealing with hazardous materials represented additional strains on the community finances, which raised the question of whether the municipal tax base should fund services to a national port.

Witnesses that were sensitive to the concerns of people living with major intermodal activity had many suggestions for the federal government to better share the costs and benefits from intermodal traffic with the local community. Specifically, it was suggested that the federal government:

- invest more in grade separations at rail crossings (this was addressed in an earlier section of this report);
- compensate municipalities for lost property tax revenues on land reserved for industrial use (rather than forcing them to accept the most lucrative land-use opportunity, e.g., waterfront condos, which does not preserve land for industrial use);
- provide additional funding for trade dependent municipal corridors and public transit to reduce congestion on them;
- share more tax revenues (e.g., fuel taxes) with local governments; and
- come up with a formula to share economic growth with urban centres significantly affected by business-gateway growth.

Furthermore, it was recommended that the federal government try to improve the perception of containerized trade by measuring and promoting the local benefits of the trade activity. The federal government could also encourage secondary industries to take advantage of new transportation systems, broadening the benefits of the intermodal infrastructure. One witness suggested that better communication with the community regarding the long-term infrastructure plans would help the surrounding communities better understand the full scope of the infrastructure program and plan for the future.

The Committee is sensitive to the concerns expressed by local communities regarding some of the negative impacts that can occur from container operations. We believe that

many of these concerns can be alleviated through better communication between the industry participants and the communities affected. We would also note that in some cases these issues fall under provincial and/or municipal jurisdictions (e.g., connector roads to ports). Nevertheless, we believe that better communication would provide local communities with a degree of comfort that they do not have now.

5. Horizontal Policy Issues

“[T]here is a real need for a convergence of visions between the agriculture industry in this country and the transportation industry.”

*Greg Cherewyk
Director of Market Development
Pulse Canada*

Representatives of the agriculture industry told the Committee that they found transportation policy to be at odds with agriculture policy in Canada. While the federal government’s agriculture policy is geared towards product differentiation and adding value at home, transportation policy does not seem to support these goals. There are no incentives for container equipment owners to allow producers to load and seal their products at the point of origin and, as a result, producers suffer a shortage of container equipment and have to accept long transit times that do not allow them to honour delivery commitments to their overseas customers. The Committee was told that, unless the contradiction in federal policy was addressed, the sustainability and competitiveness of the pulse and special crops industry would be threatened.

Another policy area related to intermodal competitiveness is the excise tax policy related to “free trade zone” activities in Canada, which became law in 2001. The Committee heard that Canada’s export distribution center (Canada’s parallel to the free trade zone concept) programs are not creating business opportunities or employment. The Committee was told that the programs were so restrictive, cumbersome and poorly promoted that only 30 companies participated in the most recent year for which data were available. By way of comparison, in 2004, some 2,300 companies were participating in U.S. free trade zone programs, which handled US\$225 billion in merchandise and employed 330,000 people. The success of inland container terminals that contemplate value-added activity in their business plan may depend on the effectiveness of the Canadian policy in this area.

The Committee is aware of these concerns and believe they need resolution if the container transportation system is to grow in Canada. The issue of container shortages is

especially critical on the Prairies and no more so than in the pulse and specialty crops industry which cannot get enough container equipment to meet its needs. We recognize this and have tried to address this issue in our recommendations dealing with “cabotage” in an earlier section.

Similarly, we see the issue of free trade zones as another important component in the container handling system. Again, we have tried to address this with our recommendation in an earlier section dealing with inland terminals.

CONCLUSION

Throughout our study on containerization we have been struck by the fact that all of the system participants are eager to find ways to improve the system. What we have also noted, is that many of these players seem to work in isolation and as a result there is a lack of coordination among the stakeholders in the system. The system is too important for this to continue. We believe that better communication will lead to better planning and coordination throughout the industry and resolve some of the issues we have highlighted in this report.

While many of the issues are provincial and local in nature, the federal government has an important role to play. It can show leadership at the national level and adopt policies that do not hinder the growth of the container transportation system.

On the private sector side, our overarching recommendation is the creation of a National Gateway Council to bring together industry stake holders and governments from across the country to seize and exploit the evident opportunity by enhancing communications, bringing efficiencies to the system and marketing Canada's container transportation to the world. Once this occurs we believe that Canada will be able to enhance its competitive position in the world and increase its market for container shipments to North America.

APPENDIX A: BACKGROUND ON CONTAINERIZATION

“Two things led to the evolution and the growth of the container industry. First was the rise in global trade from relaxed trade laws... The second was the development of container technology over the last 30 years.”

Dr. Jake M. Kosior

Before containerization, maritime cargo handling practices had not changed for over 100 years. Building pallets and loading them into the holds of ships was a slow and labour-intensive process, and the cargoes were vulnerable to damage and theft. Using a sealed steel “box” of standardized dimensions (measured in twenty-foot equivalent units or TEUs) to transport cargo has a number of advantages. Most importantly, total shipping time was reduced because the containers may be transferred from ship to rail to truck, and back again (hence the term “intermodal”) very quickly. As the box can be secured and protects the cargo inside, the costs of theft and damage are far less with containerized freight than palletized cargo. Furthermore, the development of climate-controlled containers has made intermodal shipping for temperature-sensitive products possible.

Evolution in container technology – particularly in container vessels, has been a strong catalyst of the rapid growth of containerized freight volumes since the prototypes were developed over 50 years ago. For example, the economy that results from increasing the scale of container carriers has substantially reduced the price of transporting them. The first container ship carried fewer than 100 boxes, but by 2005 the world’s largest container ship could carry 8,600 TEUs. By September 2006, the bar was raised again and the biggest container ship in the water was an 11,000 TEU vessel called the Emma Maersk. Some experts predict that the maximum size of container vessel will be constrained by the depth of the Strait of Malacca (between Indonesia and Malaysia) at about 18,000 TEUs. As the capacity from the largest ships already on order is pressed into service, shipping lines are expected to lower their rates even further. Other technologies that have rendered container transportation more efficient over the years include developments in information technology, which have substantially reduced the paper documentation required for shipping, faster container handling equipment at the ports and inland, and railcars for moving stacked containers. Between 1970 and 2004, the stock of containers in the world and the flow going through the ports grew by more than 4,000 percent, averaging over 10 percent growth per annum. Already, fifty percent of global trade by value is containerized.

The emergence of containerization and its subsequent growth were also facilitated by investments on the part of marine terminal operators, railways and trucking companies. In order to load and unload the ever larger container vessels, the marine terminals needed sufficient equipment and infrastructure for transferring containers back and forth from ship to railcar or truck, as well as for storing them. For their part, the railways and trucking companies needed specialized railcars and truck chassis to transport containers. Furthermore, in order to attract a larger share, or even protect their existing share, of containerized freight flows in what have become competitive continental markets for them, each of these players needs to invest in the latest technology. Other investments necessary for efficiently managing large volumes of container traffic include highway and inland terminal infrastructure. In Canada, the private sector has been responsible for the majority of container-specific investments, although the government sector is starting to make targeted investments in the intermodal transportation system.

The policy environment in which the various components of the Canadian container transportation system operate is a patchwork of federal, provincial and municipal jurisdictions. The federal government regulates maritime shipping, the container ports, the major railways and some aspects of trucking services, while the provincial governments are responsible for the road network and other aspects of trucking services. Municipal governments have an impact on the container transportation system through urban planning activities. Coordination among the three levels of government is difficult but necessary as Canadian, U.S. and Mexican transportation systems compete to establish as large a market share as possible of North American container traffic in the next five to ten years.

APPENDIX B: BASIC INFORMATION ON CONTAINER TRANSPORTATION

Throughout its hearings on this study, the Committee gained insight into how players in the container transportation system fit together and what motivated their behaviour. This appendix presents that material as well as what the Committee heard about best practices at container ports in other countries and the North American container port situation. It closes with a summary of the maritime route trends, which are expected to influence which ports in North America will be most competitive for North American container flows.

Shipper Decision Criteria

The Committee learned that container transit reliability is paramount for shippers. According to one witness, the top 1,000 blue chip shippers in the world ranked scheduled, reliable service as number one among the criteria they considered when selecting a port or shipping line. In fact, reliability is so important to large retailers that they increasingly find it worthwhile to add flexibility of their distribution system by building facilities for sorting and repacking containerized goods close to the port. Shippers concerned about problems and delays at particular marine terminals may even decide to split their business over a number of locations in order to mitigate “route risk.”

The Committee was also told that decisions about how to get containerized product or supplies to market in North America involved a trade-off between price and transit time. Some shippers, such as shippers of high-value goods, are prepared to pay more for a shorter transit time. For example, containers of high-value, time-sensitive goods from Europe bound for Chicago may be offloaded at Halifax to go on to Chicago by rail instead of continuing by sea to Montreal for off-loading because it is faster, not cheaper.

Rail and Ocean Carrier Economics

The Committee learned that container carriers are primarily concerned about maximizing the use of, and revenues from, their assets. To that end, both shipping lines and railways try to configure their networks and service patterns to maximize their share of the profitable part of the market and minimize the costs of serving it.

In order to minimize the costs of serving their customers, shipping lines acquire larger ships to take advantage of economies of scale. In 1998, the state of the art was a 6,000 TEU vessel but in 2007, 11,000 TEU vessels – roughly the length of a 20-story-high building and 14 stories across, have become common. In order to maximize the utilization of its

assets, a shipping line might find it worthwhile to spend up to \$150,000 a day in extra fuel to make up time if they fell behind their schedule. For the same reason, ocean carriers increasingly unload the contents of their containers at transload facilities near the ports in order to return the containers for another import cycle.

The Committee heard that a railway's version of maximizing the utilization of their assets is to become a responsive, origin-destination service with no non-revenue moves. To be efficient, the railways operate with the minimum volume of assets they believe is required and always have these assets moving and earning revenue. The Committee was told that the railways prefer direct routes because switching reduces system velocity and revenues from their assets. To avoid the costs of making non-revenue moves of empty cars, the railways want balanced origin-destination traffic that avoids moving empty cars for free. One witness told the Committee that only the promise of sustained, balanced traffic that generates revenues to cover costs would motivate the railways to put in more service.

Marine Terminal Efficiency

Marine terminals provide the link between ocean carriers and surface transportation services. The Committee learned that a container terminal is paid for lifting containers on and off an ocean-going vessel as well as for storing containers after the free storage time has elapsed (demurrage).

The marine terminals can attract large container ships if they can process them quickly, allowing the shipping lines to get back to sea on schedule. Some of the very large vessels can carry 8,000-10,000 containers and require specialized marine terminals. It is a sophisticated process to unload large container ships and to stack, or otherwise handle, the containers efficiently and to coordinate with subsequent surface movements. Since it is very bad business to jeopardize the rotation of the ocean carriers, the Committee was told that it would be an unusual circumstance if there was even a one- or two-day wait to be loaded or unloaded at a marine terminal.

Witnesses told the Committee that the capacity of a container terminal was highly variable depending on how it was operated. In order to improve container terminal throughput without expanding it, the operator could buy newer equipment that stacks containers higher and coordinate truck pick-ups with its storage areas by using a computerized reservation system. Stacking containers higher could also necessitate an investment in planning technology to ensure that the containers are accessible when needed. Storing empty containers away from the terminal is another way to increase the productivity of a facility as would reducing the amount of free container storage time allowed. A marine terminal's capacity also depends on how quickly its surface transportation partners are willing and able to move the containers to and from the terminal.

To be competitive, a container terminal requires certain infrastructure, equipment and natural endowments. The dockside cranes must be fast, high and wide enough to reach across the deck of a ship and the dock must run the length of the ship to access the containers. The technology is changing rapidly and the marine terminals must invest to keep up with the growth in vessel sizes. A marine terminal also needs a large amount of storage capacity for inbound and outbound containers, inland road and rail connections (ideally suitable for double stack rail services), and possibly access to shortsea shipping services. To receive the larger vessels, the marine terminal should have a water depth of 15 meters or more. In addition, a marine terminal can only compete for container traffic if it meets international security standards.

International Container Port Best Practices

The Committee learned that Asia has six of the world's top 10 container ports. Shanghai, Shenzhen, Pushan, Kaohsiung all handle at least 9 million TEUs per annum while the container transshipment ports in Singapore and Hong Kong each handle more than 20 million TEUs per annum.⁶ It is important to note that emerging nations can leap forward with the benefit of new technology and establish brand new ports using the most modern features. Other differences between Asian and North American ports are labour and work practices. The most productive ports in Asia tend to operate 24 hours a day, seven days a week and North Americans would need to adapt to this reality to be competitive.

Witnesses told the Committee that some European ports are also highly automated and very efficient and are open 24 hours a day, seven days a week. Container ports in Rotterdam and Hamburg handle 8 million to 9 million TEUs per year each. The Port of Amsterdam, which is outfitted with U-shaped cranes and guarantees a minimum of 250 container moves per hour, is also a good example of high container port efficiency in Europe.

North American Container Port Situation

The Committee was told that North American ports must change course over the next 15 years or the shortage of capacity compared to demand will be a considerable problem. As of a few years ago, only a few container ports in the United States had excess capacity and a witness told the Committee that it looked as if expansions on the west coast would not create enough capacity to eliminate congestion. Congestion, particularly at the ports of Los Angeles and Long Beach, which are also the most efficient North American

⁶ It can be misleading to compare throughput statistics from transshipment ports and gateway ports. Every container is counted twice at transshipment ports and the cranes are more productive because they can remain in place for a day or two. At gateway ports, the cranes must be repositioned more frequently, reducing their productivity.

container ports, is causing shipping lines to look for alternative access to the continent. In response, three intermodal gateways and corridors are emerging in Mexico with an expected combined capacity of 4 million TEUs per annum. Canadian gateways have already gained substantial business due to the delays south of the border. Canadian ports are particularly competitive for U.S. cargo destined for points east or south of Chicago because of the direct rail lines. Although Canada's market share of containerized freight in North America is increasing, one witness warned the Committee that it would not continue to do so. Meeting the challenge will require both investments in capacity as well as efficiency-enhancing measures such as intelligent intermodal transport.

The Committee heard that there was no evidence that Canadian ports are disadvantaged in any way concerning competitiveness. Canadian ports have been able to attract new markets, have geographic advantages in terms of location and depth, and should be able to participate in the global container trade on both the west and east coasts. Furthermore, Canadian ports continue to innovate by learning from best practices at other ports and by using new technologies. Although Canadian ports are competitive cost-wise, witnesses told the Committee that they were not competitive in terms of reliability. One witness told the Committee that Canada's reputation with container steamship lines overseas has been damaged by uncertainty caused by events such as the trucking situation in Vancouver, First Nations' blockades and rail line washouts. Unless contingencies are built into the Canadian transportation system to alleviate crises and to accommodate growth, it is predicted that Canada will continue to be seen by the overseas world trade as a somewhat unreliable, unpredictable gateway. The Committee was told that the window of opportunity for Canada to change the dynamics of the flow of goods and to have a competitive position with respect to North American access will close in the next five to six years.

Maritime Route Trends

The Committee learned that congestion at some major container ports, particularly at Los Angeles and Long Beach ports, has led to shifts in traditional shipping routes. Singapore used to be the point west of which shipping through the Suez Canal to North America was the more economic route but that point has now moved east to Hong Kong, due to congestion at west coast ports. The position of shipping lines is that the longer travel time is offset by the prospect of having the ships discharged more quickly on the east coast.

Two popular container routes from Asia to North America are eastward to the west coast or westward through the Suez Canal to the east coast. Currently, 78% of Asian traffic travels to the West Coast of North America and only 2% uses the Suez Canal. In order to avoid congested west coast routes, about 20% of the traffic goes to the East Coast via the Panama Canal.

Currently, the Panama Canal is operating at full capacity and the route is limited to ships of less than 4,500-5,000 TEUs in size. By 2015 however, the Panama Canal expansion

is expected to be finished, allowing ships of between 10,000 and 12,000 TEUs through the Canal. In the meantime, it is expected that the Suez share of Asian traffic will increase significantly, at least in part due to the expected recurrence of congestion on the West Coast in the next three years. Although the Suez route is more costly, because it requires more vessels to service, the Committee was told that it would provide a more reliable service for shippers.

With respect to the largest container vessels, witnesses told the Committee that the economics of the super-sized ships were such that they probably would not enter into the Asia-Pacific service. The crossing time on these routes is too short and the number of top-up ports on the string would slow the vessel down. Witnesses thought the largest vessels would be more economic on an inter-European or inter-Asian service. Regardless, the Committee heard that North America is not likely to receive the largest container ships, such as the 11,000 TEU Emma Maersk. The introduction of the mega-ships is expected to have a ripple effect that will be seen at all ports, however. As the 12,000 TEU vessels come online, the smaller vessels are expected to cascade into service in North America. For example, the Committee was told that Los Angeles and Long Beach would probably receive 10,000 TEU vessels and Vancouver and Halifax would probably receive 8,000 TEU vessels.

APPENDIX C: CANADA'S WEST COAST CONTAINER PORTS

This appendix provides an overview of what the Committee learned about the port and surface transportation infrastructure and services at Canada's west coast container ports.

Container Port Services

Canada's west coast container ports, which include those in Vancouver and Prince Rupert, have natural advantages, including being closer to Asia and being in deep water. The ports in Seattle-Tacoma are Vancouver's main competitors for container traffic because they are gateway ports with inland markets whereas California's ports mostly serve their local market. The fact that Deltaport, Vancouver's southern-most container terminal, is three hours closer to the Orient than Seattle is a key advantage. Today, less than 5% of Canadian imports come through Seattle compared to 35% 14 years ago. The new container port in Prince Rupert is several hours closer still.

In 2005, Canada's west coast container ports received 9% (2.1 million TEUs) of total container traffic on the west coast of North America. In comparison, U.S. Northwest ports handled 3.9 million TEUs and California ports handled 14.2 million TEUs. Currently only 7% of containers coming into Vancouver go to the United States and the rest go to Central or Eastern Canada. By 2020, Canada's west coast container ports, including the new container terminal in Prince Rupert, are projecting between 5 and 9 million TEUs per annum, which would represent a significant increase in market share (up to 17%). A more conservative scenario projects 5 million TEUs by 2015, yielding an average of 10.2% traffic growth per annum.

Investment in the new container terminal in Prince Rupert will result in the fastest corridor between North Asia and Chicago. The project is valued at \$175 million, including federal, provincial and private investments. Phase 1 will create capacity of between 400,000 and 500,000 TEUs and the second phase would raise it to 1.7 million TEUs.

The major container terminals in the Vancouver area have made investments in their facilities to increase capacity. Port of Vancouver now uses a web-reservation system at its container terminals, which is helping them achieve their goal of a 20 minute truck turnaround time. Centerm, one of the Port of Vancouver's three container terminals, added 8,000 feet of rail at the terminal, rail mounted gantry cranes, and super post-panamax dockside cranes large enough to reach across an 8,000 TEU vessel. The terminal operator, Dubai Ports World Inc., offers a limited number of free storage days to encourage surface transportation services to remove containers from the premises quickly. Under normal conditions, the average dwell time for import containers was under two days. The terminal operator also reported that it recently invested \$150 million in technology and was about to

add \$30 million more, which its labour force readily accepts. As a result of these practices, the capacity at Centerm has more than doubled since 2005.

The operator of the other two container terminals at the Port of Vancouver, TSI Terminal Systems Inc., has also implemented practices that have improved terminal productivity. The operator has purchased new super post-panamax cranes, rail mounted gantry cranes and new terminal operating systems for both Deltaport and Vanterm. As well, a new terminal operating system keeps the crane in constant motion and improves productivity. Due to these and other improvements, the largest container terminal, Deltaport, managed to operate over capacity for two years.

Fraser Surrey Docks is the other container terminal in the Vancouver area and very recently came under the amalgamated jurisdiction of the other Vancouver ports. Fraser Surrey Docks is located 25 kilometres inland on the Fraser River. At its peak, it handled 350,000 TEUs per annum, and there are plans in place to take the terminal to 850,000 TEUs. Although there is a perception that access to Fraser Surrey Docks is constrained, the river terminal can actually handle ships up to about 5,000 TEUs with a tidal assist. The terminal operator, Fraser Surrey Docks, believes that the Fraser River can play a role in relieving systemic congestion but acknowledged that it did not have the potential to greatly increase the capacity of the gateway as the shipping world acquires ever larger vessels. The Fraser River Port container facilities aim to serve a niche market of high value, time sensitive shipments, as containers can travel from Fraser Surrey Docks to Eastern Canada in five days.

Unlike the busiest container terminals elsewhere in the world, no container terminal in Vancouver is open 24-hours a day. Terminal operators and the port have extended gate hours for the busier terminals to reduce congestion and increase the efficiency of trucks picking up containers, however. While it faces local opposition, the Port of Vancouver plans to increase gate hours by 2 hours per year for the next four years until they are open 18 hours a day.

The Vancouver Port Authority is active in business development. The authority opened an office in Beijing in 1994 and more recently it opened one in Chicago in order to grow business into the U.S. Midwest. Based on accounts from terminal managers and shippers, the biggest challenge for Vancouver ports is not attracting more business but handling the business that comes at them.

Surface Transportation Services

Container importers and exporters whose shipments come through Vancouver marine terminals rely heavily on rail services, which include those of three Class 1 railways. About 65% of export containers arrive in Vancouver by rail and the rest arrive by truck. Furthermore, export commodities that arrive at the terminal by truck have been transloaded

from rail or truck and virtually all of them are produced outside of Vancouver. Upwards of 95% of the total import containers leave the region by rail after some of them have first moved by truck to transload facilities. Sixty-three percent of the Port of Vancouver's container traffic goes to Ontario and Quebec by rail and 35% is distributed to the local market by truck. Six percent of the Port of Vancouver's containers in 2006 went directly to the United States but an unknown amount was subsequently forwarded to the United States from inland container terminals.

APPENDIX D: CENTRAL CANADIAN CONTAINER PORTS

This appendix provides an overview of what the Committee learned about the port and surface transportation infrastructure and services at the major Central Canadian container port in Montreal.

Port Services

The Port of Montreal is 1,600 kilometres inland along the St. Lawrence Seaway, between the Northern European, Mediterranean and U.S. markets. It is a terminal port where container ships are entirely loaded and unloaded 12 months of the year. Montreal competes with container ports in New York/New Jersey and Hampton Roads/Norfolk for North Atlantic container traffic. To a lesser extent, the Port of Montreal also competes with the Port of Halifax for container traffic.

The channel to the Port of Montreal has been deepened to 37 feet and the maximum sized vessel that can access the container terminals can carry up to 5,000 TEUs. The Port of Montreal serves a fleet of rapid service container shipping lines. Of the existing world container vessel fleet, 54% can navigate to Montreal. Ninety-six percent of the Port of Montreal's maritime container traffic flows on the North Atlantic, 2% flows south of Montreal and 2% is domestic, exclusively to Newfoundland and Labrador. Sixty percent of Montreal's container market is in Canada, half of which is for Montreal or Quebec markets, and the rest is in the United States. Seventy-five percent of the U.S. containers originate from, or are destined to, the U.S. Midwest and 15% of the business is with the U.S. Northeast.

The Port of Montreal has seen growth of 6.3% per year on average in containerized freight traffic compared to the 3.3% per year experienced by its competitors between 2001 and 2005. The container market in Montreal is mature, however, and future capacity growth is not likely to be significant. The Port of Montreal is expected to see 4.5% growth on average per year through 2015 and receive an increase of more than 2 million TEUs by around 2020.

Container traffic is at the heart of freight traffic growth at the Port of Montreal. The Cast and Racine container terminals represent over 80% of the container capacity at the Port of Montreal and are operated by Montreal Gateway Terminals Partnership. These two terminals employ state-of-the-art container handling equipment including nine ship-to-shore gantry cranes (40-60 tonne capacity), 16 rubber tire gantry cranes (40 tonne capacity) and front-end loaders that are able to stack containers five high (40 tonne capacity). There are also facilities for up to 500 refrigerated containers. Together the terminals serve up to 1,500 trucks per day between 6 a.m. and 11 p.m. Montreal Gateways Terminals Partnership has

invested some \$75 million in equipment over the last 10 years and plans to continue to invest \$8 million annually. Termont Montreal operates Maisonneuve Terminal and has invested over \$40 million in equipment since 2005. Its purchases include two cranes that can lift simultaneously two 20-foot containers. The throughput of the Port of Montreal container terminals was estimated at 7,719 TEUs per acre per annum.

The Port of Montreal has been assured by consultants that its plans for infrastructure improvements will meet its needs in the future, but Montreal Island may run out of space for containerized traffic in about eight years. The Port of Montreal could be expanded by filling in the Vickers Basin and occupying the land between the port and Notre Dame Street. Furthermore the bulk operations could be moved to the Contrecœur site. The Port of Montreal plans to invest \$175 million through 2011 to accommodate traffic growth, including adding 25,000 feet of railway at the port.

Surface Transportation Services

The Port of Montreal's container traffic is somewhat evenly balanced between truck and rail services. Fifty-five percent of containers are moved to and from the port by CN Rail and CP Rail and the rest are moved by more than 25 trucking companies. Truck traffic is almost all for the Canadian market (86% of the total) whereas rail traffic is almost evenly split between the Canadian (43%) and the U.S. market (57%). Some 45 intermodal rail services per week and approximately 2,000 trucks per day serve the container terminals.

The Montreal Port Authority considers surface transportation a particular strength for the port. The Port of Montreal offers the fastest surface transit times to Toronto (10 hours), Detroit (23 hours), Chicago (33 hours) and New York from the North Atlantic. The Montreal Port Authority achieved nearly a 40 hour reduction in transit time to Chicago by working with the railways to prepare unit trains for the destination on the dock. The system in place allows for dedicated unit trains to be prepared for Chicago on 12 different lines from three terminals. The Montreal Port Authority also operates a 100-kilometer rail network on port territory with direct access to almost every berth and connections to CN and CP Rails' lines. The rail operations at the port eliminate the need for intermediate transshipment, which is unavoidable at many other ports, and a competitive advantage for the Port of Montreal.

APPENDIX E:

CANADA'S EAST COAST CONTAINER PORTS

This appendix provides an overview of what the Committee learned about the port and surface transportation infrastructure and services at Canada's east coast container ports.

Port Services

Although Atlantic Canada is a small local market, it services many international freight markets as well as Central Canada and Central United States. Nova Scotia ports have shortsea shipping services to Newfoundland and Labrador, New England, St. Pierre and Miquelon, the Caribbean, Central Canada, Cuba, and sometimes the United States.

The Port of Halifax is in competition with the ports in New York and New Jersey and, to some extent, the Port of Montreal for container traffic. Halifax currently receives some containers bound for the U.S. Midwest that have to be off-loaded from ships going to New York because the water is not deep enough there. New York has just commenced a major dredging project to 15 meters, though, which will reduce Halifax's competitive advantage somewhat. The Halifax Port Authority has been very active in traveling to India and setting up arrangements with shippers there in order to attract a regular container service via the Suez Canal.

There is room for some growth in containerized freight traffic at the Port of Halifax without further infrastructure investment, as both container terminals in Halifax are operating below capacity. That said, there is not enough excess capacity for one Maersk-size ship (6,000 to 8,000 containers) to call in Halifax once a week and fully load or unload. There is only excess capacity if 400 or 500 containers are loaded or unloaded at once, as is currently the case. The Port of Halifax expects container traffic to grow from 500,000 TEUs to 860,000 TEUs by 2020.

Canso is a potential location for another container port to compete with Halifax in Eastern Canada. The proposed private sector Melford International Container Terminal in Canso is expected to be operational in 2010 and will handle 2 million TEUs. A container terminal in Canso would be extremely competitive because it would be an ice-free, deep water, year-round container port seven hours closer to Europe than any other port in North America. Ships serving it would be able to earn revenue from three or four more turns every year than they would serving other ports.

Surface Transportation Services

CN Rail provides twice daily double-stack rail service from Nova Scotia to Central Canada and the United States. There is plenty of capacity for freight growth out of Nova

Scotia as CN Rail reports that it could run 20 trains a day from Halifax to Toronto. Presently, 75% of Halifax's container traffic is loaded onto railcars for delivery to Central Canada and the United States. Of this amount, 30% goes directly to the United States.

There are inland transload facilities in Halifax to sort maritime imports for the region from those bound for more distant markets. For example, Consolidated Fastfrate sorts Canadian Tire's container imports in Halifax, loading Atlantic Canada imports onto trucks and Quebec and Ontario imports into 53-foot containers for rail or truck delivery. Armored Transport also operates a transload facility in Halifax.

Although Canso is not directly served by a Class 1 railway, CN Rail told the Committee that it would be in a position to take on the containerized freight coming through the new terminal in Canso by 2010 or 2011.

APPENDIX F: POTENTIAL CONTAINER PORTS IN THE NORTH

Some members of the Committee asked witnesses for their views on the potential to develop a container port in Churchill, Manitoba. In response, the witnesses generally expressed some doubt as to how realistic it would be to open up the Arctic as a polar shipping route, considering that - even with global warming - the Northwest Passage will continue to be too unpredictable for shippers. Furthermore, transporting cargo to and from Churchill by land all year round is a problem. One witness suggested that the opportunity in Churchill, aside from utilizing the traditional routes in the summer months, may lie in working with the Russians to help them reach Asia.

Transport Canada officials conceded that, on the question of the Port of Churchill, if there were a longer shipping season there could be an opportunity to use the port more frequently. The rail line might need to be upgraded somewhat, though, if there were significant increases in traffic. Finally, the Committee heard that development of northern ports could also strengthen Canada's sovereignty in this region.

APPENDIX G: WITNESSES AND SUBMISSIONS

Arctic Gateway Council (April 2, 2008; issue 8, 39-2)
Francis, Schiller, Secretary.

Asia Pacific Foundation of Canada (March 13, 2007; issue 9; 39-1)
Paul Evans, Co-CEO.

Association du camionnage du Québec (May 14, 2007; issue 14; 39-1)
Sophie Tremblay, Coordinator, Technical and Operational Matters.

Atlantic Canada Opportunities Agency (ACOA) (February 8, 2008; issue 5, 39-2)
Debbie Windsor, Vice-President
Janine Fraser, Policies Analyst

Atlantic Institute for Market Studies (February 9, 2008; issue 5, 39-2)
Charles Cirtwill, Acting President
Barrie Hebb, Research Economist

Atlantic Provinces Economic Council (APEC) (February 8, 2008; issue 5, 39-2)
David Chaundy, Senior Economist

BC Trucking Association (March 13, 2007; issue 9; 39-1)
Paul Landry, CEO.

Dr. Mary Brooks, Professor, William A. Black Chair of Commerce, Dalhousie University.
(In a personal capacity) (January 31, 2007; issue 7; 39-1)

Campbell Agri Business Strategists (March 13, 2007; issue 9; 39-1)
Doug Campbell.

Canada Border Services Agency (October 17, 2006; issue 4; 39-1)

Brent Patten, Manager of the Carrier and Cargo Policy Unit, Commercial Policy
Division within the Border and Compliance Programs Directorate in
Admissibility Branch.

- Canadian Manufacturers & Exporters** (November 27, 2007; issue 2, 39-2)
David T. Fung, Chair of the Board of Directors and Chairman & CEO of ACDEG International Inc.
Jean-Michel Laurin, Vice President, Global Business Policy
- Canadian Pacific** (June 12, 2007; issue 16; 39-1)
Jim Buggs, General Manager, Car Management;
Claudio Minello, General Manager, International.
- Canadian Tire Corporation** (January 30, 2008; issue 3, 39-2)
Patrick Sinnott, Senior Vice-President, Supply Chain;
Caroline Casselman, Director, Community and Public Affairs.
- Canadian Trucking Alliance** (November 28, 2007; issue 2, 39-2)
Graham Cooper, Senior Vice President;
Ron Lennox, Vice President Trade and Security;
Elly Meister, Vice President, Public Affairs.
- Centre for Research on Transportation** (May 15, 2007; issue 14; 39-1)
Teodor Gabriel Crainic, Director, Intelligent Transportation Systems Laboratory.
- CN** (June 12, 2007; issue 16; 39-1)
Paul D. Waite, Vice-President, IMX
- David Colledge**, Colledge Transportation Consulting, Inc. (In a personal capacity) (March 14, 2007; issue 9; 39-1)
- Community Futures Pacific Northwest**
Knut Bjorndal, General Manager.
- Consolidated Fastfrate** (February 9, 2008; issue 5, 39-2)
Rob Pittman, Halifax Branch Manager
- Corporation of Delta** (March 14, 2007; issue 9; 39-1)
Her Worship Lois Jackson, Mayor;
Ian Radnidge, Director of Engineering.
- DP World Vancouver** (March 14, 2007; issue 9; 39-1)
Cliff Stewart, Vice-President, Operations.

Finance Canada (October 17, 2006; issue 4; 39-1)

Dean Beyea, Chief, Trade in Goods, International Trade Policy Division,
International Trade and Finance;

Sylvie Larose, Policy Analyst, trade in Goods, International Trade Policy Division,
International Trade and Finance;

Geoffrey MacMillan, Tax Policy Officer, general Operations and Border Issues, Sales
Tax Division, Tax Policy Branch.

Fraser River Port Authority (March 13, 2007; issue 9; 39-1)

Captain Allan Domaas, President and CEO.

Fraser Surry Docks (March 13, 2007; issue 9; 39-1)

Ross Hanson, Executive Vice-President.

Greater Halifax Partnership (February 8, 2008; issue 5, 39-2)

Stephen Dempsey, President and Chief Executive Officer

Dan English, Chief Administrative Officer, Halifax Regional Municipality

Greater Vancouver Gateway Council (March 13, 2007; issue 9; 39-1)

Bob Wilds, Managing Director.

Halifax Gateway Council (February 9, 2008; issue 5, 39-2)

James Frost, Executive Director;

John Hamblin, Member of the Board of Directors, Halifax Gateway Council and
President, Clarke IT Solutions Inc.

Halifax Port Authority (February 8, 2008; issue 5, 39-2)

Karen Oldfield, President and Chief Executive Officer

Paul MacIsaac, Senior Vice-President

George Malec, Vice-President, Business Development and Operations

International Longshore and Warehouse Union (March 14, 2007; issue 9; 39-1)

Tom Dufresne, President.

International Longshoremen's Association Council of Unions (February 9, 2008; issue
5; 39-2)

David Cranston, President / Business Agent, I.L.A. Local 269;

Fred R. Rhodenizer, Vice-President, I.L.A. Local 269;

John W. Campbell, I.L.A. Local 1825.

Dr. Michael C. Ircha, Professor of Civil Engineering, University of New Brunswick. (In a
personal capacity) (October 25, 2006; issue 4; 39-1)

Dr. Jake M. Kosior (In a personal capacity) (November 1, 2006; issue 4; 39-1)

- Laurentian Energy** (February 9, 2008; issue 5; 39-2)
James Wooder, Chief Executive Officer, Sydport Container Terminal Project.
- Loblaw Companies Limited** (March 4, 2007; issue 7, 39-2)
Robert Wiebe, Senior Vice President, Transportation
Dan Parkes, Vice President, International Transport and Logistics
- Maher Terminals**
Mark J. Schepp, General Manager, Operations
- Melford International Terminal Inc.** (February 8, 2008; issue 5, 39-2)
Bob Stevens, Chief Executive Officer
John Vickerman, Principal, TranSystems
Richie Mann, Vice-President Marketing
- Montreal Gateway Terminals Partnership** (May 15, 2007; issue 14; 39-1)
Kevin M. Doherty, Chief Executive Officer;
Michael Fratianni, Chief Financial Officer.
- Montreal Port Authority** (February 6, 2008; issue 4, 39-2) (See also Port of Montreal)
Patrice Pelletier, Chief Executive Officer
Stéphanie Isaacs, Director, Government Relations
Jean Mongeau, Vice President, Legal Affairs and Secretary
- Moose Jaw, City of** (March 13, 2007; issue 9; 39-1 & November 20, 2007; issue 1, 39-2)
His Worship Dale McBain, Mayor.
- Northwest Community College**
Deb Stava, Campus Principal.
- Northern Transportation Corridor Development Corp. (NCDC)**
Maynard Angus, NCDC Board member;
Dan Dibbelt, NCDC Board Member; Northern Alberta Development;
Ron Vanderlee, Board Member, Pacific Northwest Gas.
- Nova Scotia, Province of** (February 21, 2007; issue 8; 39-1)
The Honourable Angus MacIsaac, M.P.P., Deputy Premier and Minister of
Transportation and Public Works, Province of Nova Scotia
David Oxner, Director, Gateway Initiative; Department of Transportation and Public
Works.
- NSCAD University** (February 8, 2008; issue 5, 39-2)
John D. Mabley, Vice-President, University Relations;

Linda Hutchinson, Associate Director of Advancement.

Nunavut Tunngavik Inc. (April 2, 2008; issue 8, 39-2)

Monica Ell, Director, Business and Economic Development.

Palliser Furniture Limited (March 4, 2007; issue 7, 39-2)

Art DeFehr, President and Chief Executive Officer

Port of Montreal (February 7, 2007; issue 7; 39-1 & May 14, 2007; issue 14; 39-1) (See also Montreal Port Authority)

Dominic J. Taddeo, President and Chief Executive Office;

Jean-Luc Bédard, Vice-President, Operations and Harbour Master;

Robert Masson, Vice-President, Marketing and Development.

Prairie-to-Ports Gateway & Inland Port (November 20, 2007; issue 1, 39-2)

Doug Campbell, CEO

Barry E. Prentice, Professor, Asper School of Business, University of Manitoba; (In a personal capacity) (November 1, 2006; issue 4; 39-1)

City of Prince George (March 14, 2007; issue 9; 39-1)

His Worship Colin Kinsley, Mayor.

Prince Rupert Grain Limited (February 13, 2008; issue 6, 39-2)

Jeff Burghardt, President and Chief Executive Officer

Prince Rupert Port Authority

Don Krusel, President and Chief Executive Officer;

Maynard Angus, Manager, Public Affairs;

Gary Paulson, Director Operations & Security;

Barry Bartlett, Manager, Corporate Communications.

Prince Rupert, City of

His Worship Herb Pond, Mayor;

Gord Howe, City Manager;

Christopher Colussi, Manager, Prince Rupert & Port Edward Economic Development Corporation.

Pulse Canada (February 14, 2007; issue 8; 39-1)

Lloyd Affleck, Chair;

Gordon Bacon, Chief Executive Officer;

Greg Cherewyk, Director of Market Development.

Quebec Shortsea Shipping Roundtable (May 15, 2007; issue 14; 39-1)

Nicole Trépanier, Executive Director, Armateurs du Saint-Laurent.

Quickload CEF

Jeff Mackey

Railway Association of Canada (June 12, 2007; issue 16; 39-1)

Cliff Mackey, President.

Regina Regional Economic Development Authority (February 6, 2007; issue 7; 39-1)

Clare Kirkland, Director of Strategic Development.

Ridley Terminals Inc.

Gregory A. Slocombe, President & Chief Executive Officer

Robert Transport Inc. (May 14, 2007; issue 14; 39-1)

Claude Robert, President and Chief Executive Officer, and President, Canadian Trucking Alliance.

Saskatchewan AgriVision Corp. (March 13, 2007; issue 9; 39-1 & November 20, 2007; issue 1, 39-2)

C.M. (Red) Williams, President.

Saskatoon, City of (November 20, 2007; issue 1, 39-2)

Donald Atchison, Mayor;
Randy Grauer, City Planner.

Shipping Federation of Canada (May 15, 2007; issue 14; 39-1)

Michael H. Broad, President;
Anne Legars, Political Director, Governmental Affairs.

Smit Marine Canada Inc.

Mike Stevenson, Manager

Southern Ontario Gateway Council (June 5, 2007; issue 15; 39-1)

John Best, Executive Director.

St. Lawrence Seaway Management Corporation (May 15, 2007; issue 14; 39-1)

Richard (Dick) Corfe, President and Chief Executive Officer.

Termont Terminal Inc. (May 15, 2007; issue 14; 39-1)

Roger Carré, General Manager;
Robert Desrochers, Comptroller.

TransLink (Greater Vancouver Transportation Authority) (March 14, 2007; issue 9; 39-1)

Robert Paddon, Vice-President.

Transport Canada (June 20, 2006; issue 2; 39-1 & October 4, 2006; issue 3; 39-1)

The Honourable Lawrence Cannon, P.C., M.P., Minister of Transport, Infrastructure
and Communities. (October 4, 2006; issue 3; 39-1)

Kristine Burr, Assistant Deputy Minister, Policy;
Richard Saillant, Acting Executive Director, Rail Policy;
Roger Roy, Director General, Economic Analysis;
Emile Di Sanza, Director General, Marine Policy;
Laureen Kinney, Director General, Marine Security.

Helena Borges, Director General, Surface Transportation Policy; (October 4, 2006;
issue 3; 39-1)

TranSystems (May 30, 2007; issue 15; 39-1)

John Vickerman, Founding Principal.

TSI Terminal Systems Inc. (March 14, 2007; issue 9; 39-1)

Morley Strachan, Vice-president, Operations and Business Development.

Vancouver Container Truckers Association (March 14, 2007; issue 9; 39-1)

Paul Uppal, Business Agent;
Pete Smith, National Representative, CAW.

Vancouver Port Authority (March 13, 2007; issue 9; 39-1)

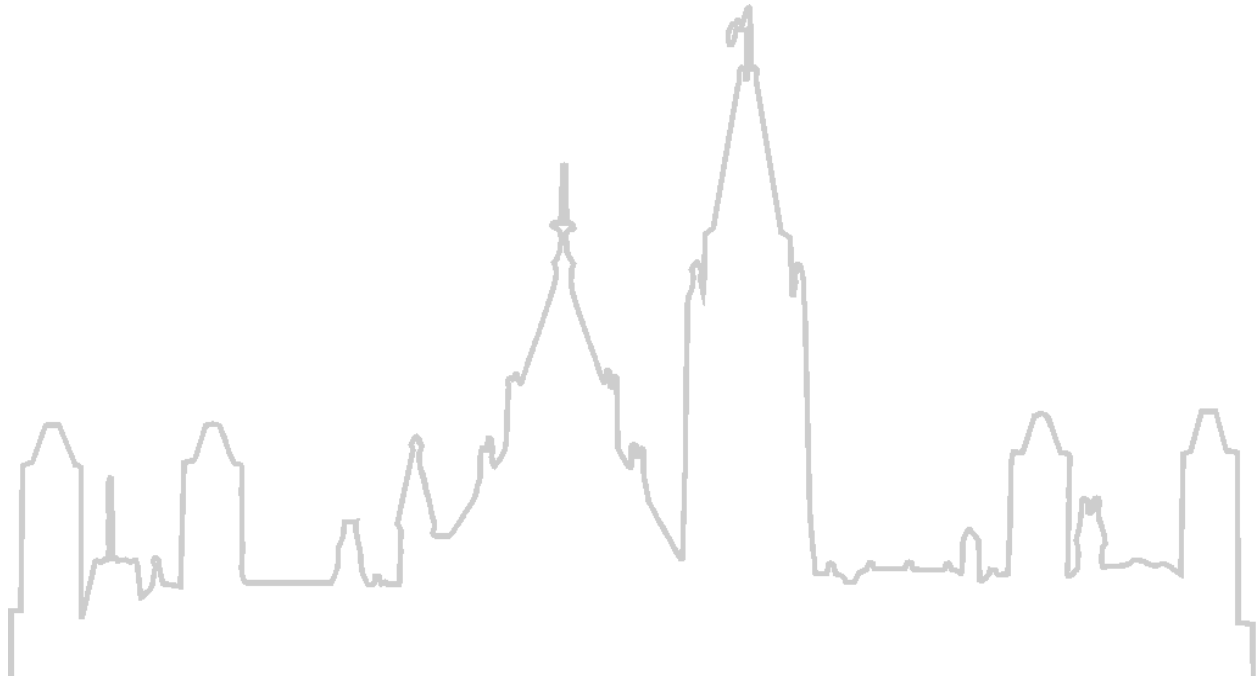
Captain Gordon Houston, President and CEO.

West Coast Container Freight Handlers Association (March 13, 2007; issue 9; 39-1)

Kevin Ouellette, President;
David Peacock, Vice-President and General Manager, Westran Intermodal;
Rick Cowan, Vice-President, Euroasia Transload;

Western Transportation Advisory Council (March 14, 2007; issue 9; 39-1)

Ruth Sol, President.
Lisa Baratta, Manager, Corporate Services.



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Opportunities and Constraints for Canada in the Global Movement of Goods

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